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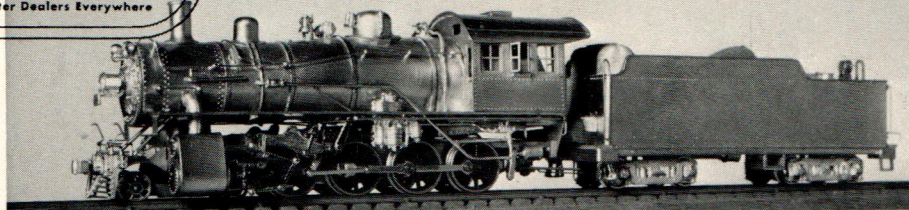
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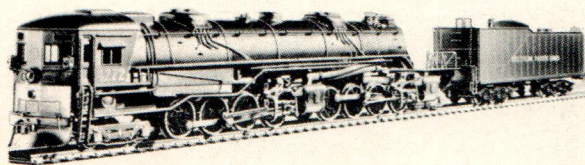
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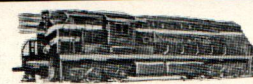
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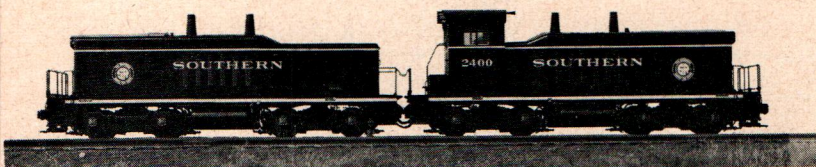


Photo of prototype



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ROADING, MODEL & RAILWAY NEWS, THE O GAGER, and THE MODELMAKER (Est. 1924) Magazines.



WE'RE DELIGHTED to welcome an old friend, Paul E. Larson, to our list of contributors this month. Paul's old Mineral Point & Northern was one of the all-time great model railroads and his new quarter-inch-scale Chicago, Neosho River & Pacific bids fair to become even better.

We feel that all model railroaders will benefit from Paul's new series of varied, self-contained features, regardless of their own personal gauge preferences. Sometimes modelers lament the lack of articles specifically pertaining to their own scale or gauge. We've long felt that the scale *per se* is relatively unimportant. What is important is the manner in which the model rail utilizes the materials and talents at his disposal to create, not a layout, but a real model railroad.

We've seen many great model railroads in our quarter century plus in the hobby and maybe its only natural that we've seen more flubbed opportunities in those scales and gauges where the modeler has had the most assistance available in the form of equipment and supplies. Ironically, some of the railroads that stand out strongest in our memories were pikes where some of the equipment was unashamedly tinplate and structures were rough hewn cardboard.

Paul is a perfectionist. It doesn't follow that all of our readers must follow Paul's ideas to a "t." It's our hope that our readers will assimilate Paul's ideas, adapting them to their own model railroad systems, in a manner which reflects their own concepts of model railroading.

The Hobby Industry Association Convention and Trade Show at Chicago's Sherman House was, as promised, the biggest ever despite -10° temperatures and severe Eastern snow conditions. We happily rode the Pennsy's crack "Broadway Limited" both ways and were a bit shook up at finding four coaches attached on the homeward run, due to equipment problems which saw the Pennsy's "General" running in combination with the "Broadway." A dining car steward named L. Riley helped make dinner memorable both east and west, and service generally was superb despite the rugged storm conditions. See page 40 for a full report.

Handwritten initials: H&Q

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SPECIAL FEATURES

- 22 Boomer Trail Photos From Our Readers
- 32 Locomotive Builder Photos.... Nos. 259-264
- 40 1966 Chicago Hobby Show
Report Special RMC Feature
- 44 Lionel Articulated Trains..... Toy Trains

PROTOTYPE & PLANS

- 21 L&N Handcar House Joe Wilhelm
- 24 SR&RL Reeds Mill Depot..... James D. Frary
- 27 Electro-Motive F-2, F-3, F-7 Larry Jackman
- 34 92' 50,000 Tank Car UTLX..... Larry Jackman
- 34 89' Thrall Tri-Level Auto Rack
Car Larry Jackman

CONSTRUCTION & TECHNIQUE

- 16 Ideas Make A Railroad Paul Larson
- 26 Locomotive Slip-Up..... Bill Schopp
- 36 Sorghum Mill E. L. Moore
- 46 Short Circuit Check List Bill Schopp
- 54 New York & New England RR Layout Doctor

DEPARTMENTS

- 5 Safety Valve
- 10 Dispatcher Report
- 14 RMC Timetable
- 52 Swapper Column
- 52 Test Track
- 60 Trouble Shooting
- 63 Dealer Directory
- 66 Advertising Index

COVER

Paul Larson at work in his well equipped shop. The first of Paul's articles for RMC on his new Chicago, Neosho River & Pacific appears on page 16 of this issue. . . . And an assortment of Electro-Motive F units to supplement coverage of the F-2, F-3, and F-7 found on page 27, all by Hal Carstens on Kodachrome film.

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SAFETY VALVE



The Good Samaritan

I'm looking for an honest man among model railroaders. My husband was a model railroad fan since the early 1920's and recently passed away. I wrote to one person asking how I should go about disposing and itemizing the equipment, since I know nothing about model railroading.

I discovered that model railroaders are supposed to be an exceptionally unique group. They extend a helping hand to widows (I am told) to come and inventory all equipment, etc., and auction it off at their meetings, all done with the intent to help widows and that someone else will do the same for them when the time comes.

It sounds so marvelous that I was relieved to hear this. In actuality, it didn't work out that way. I was put in touch with a man who came today and made an inventory. I was so grateful to think that a total stranger would give up his free time to extend a helping hand to me that I wanted to show my gratitude by giving him a few special things. He accepted them. Then the inventorying began. Once, then twice, then frequently came the comment, "Oh, this is just what I've been looking for" or "This is what I need to finish my project" or "I'd sure like to have this."

What would you do in such a situation? You can't say "I want X dollars for it." The man was there be-

cause I had no idea what the price would be and I was put on the spot. What else could I do but say, "Of course, take it." He did. In fact he walked off with both arms loaded.

Someplace there must be an honest man. If I sound bitter, I don't like being that way, but I don't like being chiseled either.

"A Model Railroader's Widow"
(Name Withheld)

This is an increasing problem being met with varying degrees of success in different areas. NMRA has issued a booklet described recommended procedures to be followed. The TCA has set up special recommended procedures which brought one eastern widow a substantial amount and the auctioneer in this case accepted no remuneration, although TCA policy permits the auctioneer or estimator 10% of the proceeds. The 10% would seem a fair amount since the work can become very involved. Any other suggestions? Ed.

RMC Helps NIKE Program

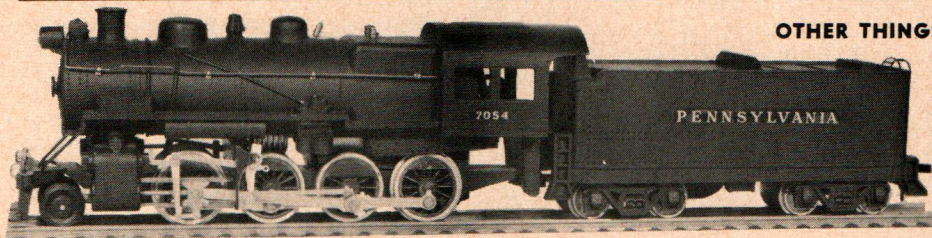
You might be interested in knowing that RMC was a significant help in the NIKE-X Program. My firm is building and wiring back panels for the computers used in the NIKE-X Ground Support Program and we needed something hot and quick that would enable us to solder contacts to ground bushings on a large aluminum panel. Standard soldering methods would not do the trick because

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PENNSYLVANIA RR H-9, 2-8-0

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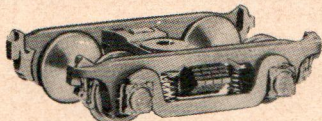
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Ed Charles of Pittsburgh gave us this photo of the Italian "Roman Club Friends of the Railway," headed by Giulio Giuliani, of Rome. Engine in rear is the real thing, not a product of Rivarossi!

of heat dissipation in the panels.

A bell rung, I dug a copy of RMC out of my desk, and brought up the possibilities of using Bill Schopp's Carbon Electrode Soldering Tweezers. From what I read, they would do the trick.

After calling Bill, I drove over to Trenton and picked up the tweezers. They do a most satisfactory job and enabled us to triple our output of ground connections plus the assurance that we had a reliable soldered joint.

George A. Eschbach, Jr.
1225 Bridge St.
New Cumberland, Pa.

Protest the Rising Tide of Conformity

I imagine the subject has been thrown around before but why do manufacturers neglect equipment of certain railroads? Is it because some roads have such little interesting equipment? I'm referring to the New York Central, Erie-Lackawanna, Nickel Plate, Frisco, Seaboard, Milwaukee Road, and others.

At least the NYC and E-L are slightly represented in the freight car department. NYC has a few diesels but other roads are completely neglected. Aren't these roads important? Or are the manufacturers going Santa Fe and Pennsy just because everybody has heard of these two??

Lets have more cars and engines of other roads. I have nothing against the ATSF or Pennsy or Burlington, but I am for representation of more roads in the model field.

Wayne Mogielnicki
40 Fernwood Crescent
Riverdale, N. J.

Lotsa luck, Wayne. The big manufacturers will continue to paint their units for the bigger roads, including NYC, because those are the most popular and sell the best. Modelers in-

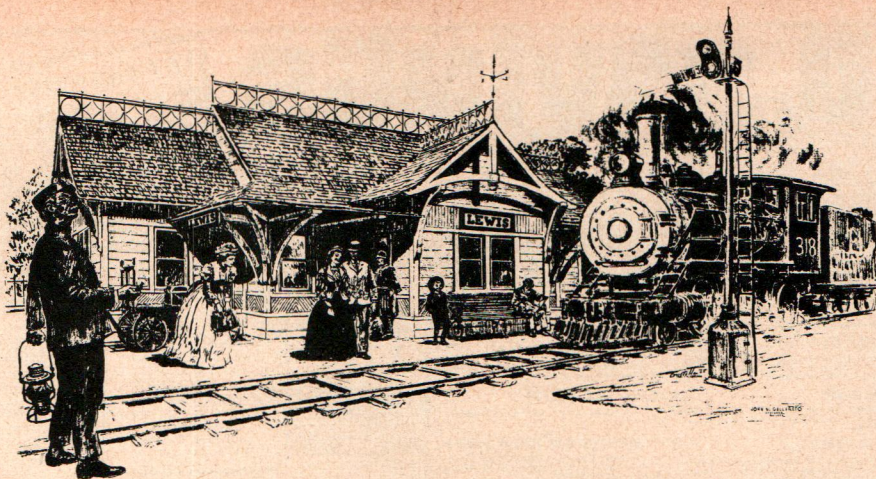
terested in such things as the good old E-L, Boston & Maine, Western Pacific, KCS, etc., will have to get the undecorated versions and paint their own. Fortunately, plenty of decals are available from Champion Decal Company and William K. Walters, so that many locos can be correctly lettered for a wide variety of roads. Its also true that the modelers of less popular and smaller roads have a wider variety of equipment to choose from today than ever before. Learn how to use decals and a whole new world will open unto you. Ed.

Pass Collecting Is An Art

The art of collecting passes is a fascinating aspect of model railroad-ing, though it is regrettable that some issuers only print up 25 or so passes before they insert a pass listing in RMC and elsewhere.

Sometime ago I sent 150 passes to the NMRA convention in Philadelphia and received 147 passes in return. I would say this is the way to do it, so organized a similar system here in my home for the benefit of railroaders wishes to exchange.

My system works as follows. Passes are sent to me in multiples of 25, postpaid. A stamped self addressed envelope must accompany each 5 passes. Passes will be returned in multiples of five to the sender. Passes will be held one year, then returned if not used along with unused envelopes. Duplicate passes, if the sender already has one, may be returned for credit. Do not write on the line marked "issue to." Leave it blank so the receiver of the pass can write it in himself. Passes will be exchanged in equal amounts and the sender can send as many times as he wishes as long as passes are received to exchange. All passes will carry an iden-



Little Engines, Box A, Lomita, California, built and donated this beautiful Victorian depot to the city of Lomita for use as a railroad museum in memory of the late Martin S. Lewis, live steam model pioneer and one-time contributor to RMC. Suitable equipment donations are solicited to make the museum even more interesting.

tification mark on the back, for file purposes only. All passes will be kept clean and in good order.

The system allows the sender to receive passes at the cost of about one cent each for mailing, instead of five cents each, thus giving him 80% more money for more passes.

William Miller
Country Hobby Center
Saylorsburg, Pa. 18353

Illinois Central Details

I like in Kankakee, Illinois, and at the IC depot in town they use light scrap rail as guard rail posts. They use them around the parking lot and around the crossing gates painted silver. About 2½ ft. protrude above the ground, to which is bolted a 2x8 board. It makes an easy to build model and is a good way to use up scrap rail.

Stan Seidel
1401 W. Hickory
Kankakee, Ill. 60901

Same idea is used by many other roads, including the Erie outside our window. Ed.

Boston E1 Cars

Thanks for the photos of the Boston Type 5s in the January issue. Car 5562 shown on page 32 appears to be at North Point carhouse. There is a Type 4 semi-convertible in the far right in the photograph. 5562 itself is in the street which parallels the caryard. Some of Boston's Type 5s had Brill trucks. These were the "high-speed fives."

Charles W. Coburn
51 Mt. Vernon Street
Somerville, Mass. 02145

Rapid Transit

Schopp's photo of his old rapid transit setup was interesting since we're in rapid transit, too, with an operating HO layout. Our layout is patterned after Boston and we have models of various type MBTA cars which we have either scratch built or converted from Pittman Bride & Groom cars, or from Kidder's Jap-

anese suburban cars. Our roster includes a BMT standard, MBTA modern Cambridge-Dorchester line car, MBTA Everett-Forest Hills line car, IRT train in BMTA colors, IRT train in New York colors, Kidder 70 ft. car with regular windows, and a work train. All equipment has pantographs. Our pike has simplified elevated trackage.

John and Bob Legon
26 Central Avenue
Malden, Mass.

Schopp to the Rescue

I was greatly pleased with the article by Bill Schopp (Jan. '66) on the ABC's of Wiring. I have been modeling in HO for about eight years and have never been able to make a conventionally wired steam loco transfer blocks without hesitating. The suggested idea of wiring the same poles of the different power packs so as to have a common rail for different blocks was tried and the results were most gratifying and unbelievable. I have a double crossover which I had almost torn out because I couldn't get my trains to transfer blocks smoothly. Thanks again.

Lawrence M. Battis
11112 Zebulon Pike Ave.
Burnsville, Minn. 55378

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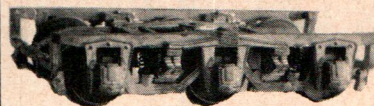
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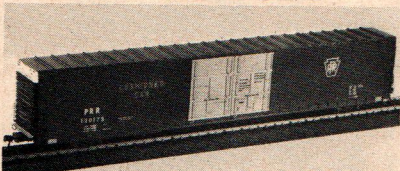
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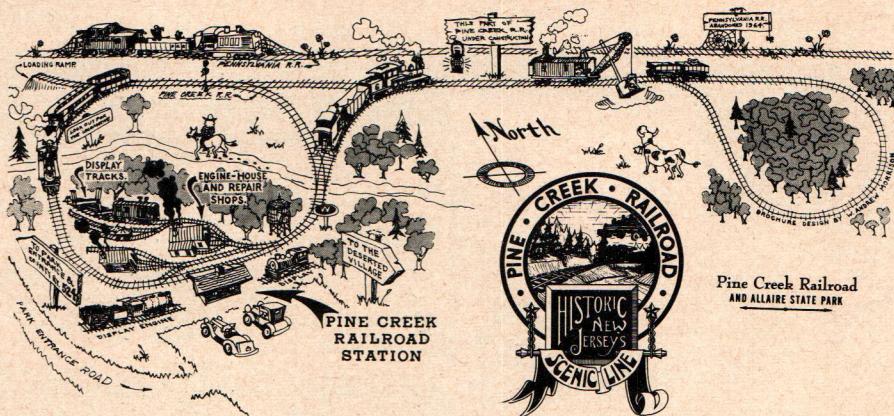
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DISPATCHERS REPORT



Railroad Men Needed

The New Jersey Museum of Transportation, Inc., Allaire State Park, Rte. 524, Farmingdale, N. J., is in need of experienced railroad men in the following skills: steam locomotive engineers, locomotive, boiler or car repairmen and machinists. Also needed are track, bridge, and building maintenance men. Interested parties should contact Herbert M. West, 132 Wynnewood Drive, Freehold, N. J. The NJMOT operates the 3' gauge Pine Creek Railroad in Allaire State Park, near Asbury Park, and operates weekends, May through November.

Clubs Seek Membership

Each month we receive notices from model railroad clubs stating that they are looking for new members. We've been listing these in our RMC Timetable column (you'll find some there this month) but from now on we're inserting them in our Dispatchers Column. *Empire Model RR Assoc., Inc.* (HO) 34-05 44th St., Long Island City, N. Y., is seeking members over 21. Prospects welcome every Tuesday night at 8 p.m. Visitors also welcome on operating night, first Tuesday. Use basement entrance on 44th St. Info from secretary Wayne Foote, phone 212-335-9496.

Cincinnati In '66

Mike Bowden, 2375 Indian Mound Ave., Cincinnati, Ohio 45212, is already hard at work on the 1966 NMRA national convention. Mike has prepared a tape-slide presentation for use by model clubs and regions showing the home and club layouts, and railroad facilities in and around Cincinnati which will be open to view come next August. For information, write Mike at the above address.

N Gauge Comes of Age

Announcement that Minित्रix, imported in the U. S. A. by Nathan Preston & Co., has introduced a new coupler that works with both the old Minित्रix coupler and the coupler used by Arnold Rapido will be heartening to N gauge enthusiasts. A new N gauge line is due for early release by Maerklin. A few American manu-

facturers are also reportedly interested in this new small size but have not as yet released any kits.

Kingston Club Robbed

Insurance adjusters for the Kingston N. Y. Model Railroad Club have advised us of the theft from the club of 26 freight cars, a Lionel twin motored diesel, and an Alco road switcher built from a Kemtron kit. Among identifying marks on the cars are lettering for the Ulster & Delaware and Hudson Valley. O gaugers in the Hudson River Valley area are advised to be on the lookout for bargain O scale sales from unknown sources. Anyone having information should contact William B. Merrill, c/o J. Richard Miller, Inc., 10 Main St., Kingston, N. Y. 12402.

Off the Assembly Lines

Wright Enterprises, 990 Falmouth St., Thousand Oaks, California, has the following new HO cars due for early release: SP Daylight, Parlor No. 1, Chair-Baggage, RPO; SP Lark Cascade, full baggage, 13 bedroom Pullman, 12 bedroom Pullman, 22 roomette Pullman, 6 bedroom-10 roomette, 4 bdrm.-4 comp.-2 dwg. rm., 5 bdrm-10 rmmte; GN Empire Builder, coach, day-night coach, 8 rmmte-4 bdrm.-4 sec., 4 bdrm.-16 rmmte., RPO, baggage-dorm, diner, lounge,



Tyco's Petticoat Junction HO train set, shown here with Edgar Buchanan and Bea Benaderet, stars of the CBS-TV show, set new Tyco sales records. Few younger viewers of the popular Top-10 show have probably ever seen a steam locomotive in action. The show reaches an audience of up to 15 million viewers per week.

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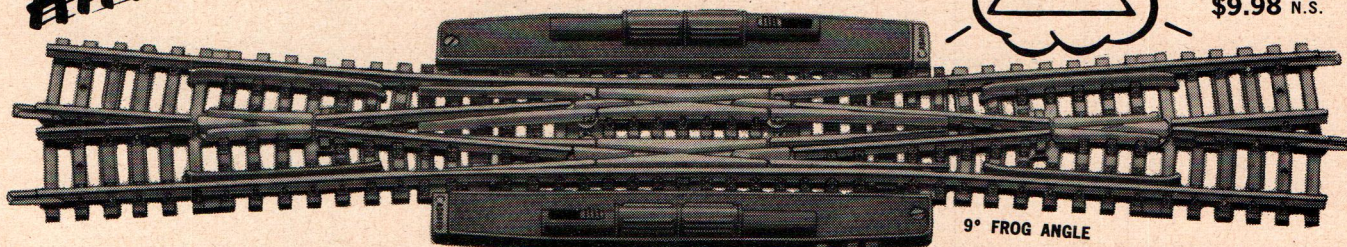
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Remote Control WYE Switch 11" Frog	4.50
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Curvable Track	75¢
Straight Track 9 inch	25¢
4 1/2"	25¢
3"	25¢
1 1/2"	25¢
Curve Track 18 inch	25¢
18" 1/2 section	25¢
18" 1/2 section	25¢
Railroad 9"	60¢
Terminal Track 18" radius	75¢

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Remote Control 3-Way Switch	10.98
Remote Control Double Slip Switch	9.98
Remote Control Single Slip Switch	8.98
Curvable Track	98¢
Straight Track 9 inch	30¢
4 1/2"	30¢
3"	30¢
1 1/2"	30¢
Curve Track 18 inch	30¢
18" 1/2 section	30¢
18" 1/2 section	30¢
Railroad 9"	65¢
Terminal Track 18" radius	80¢

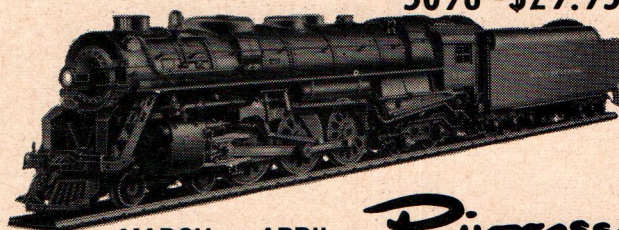
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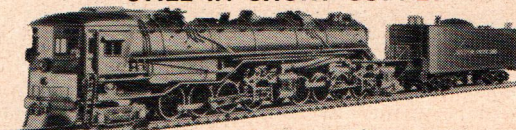


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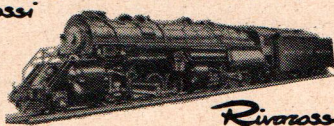
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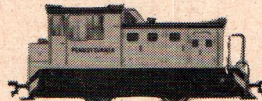
5092-2-8-8-2 Y6B Mallet \$39.95



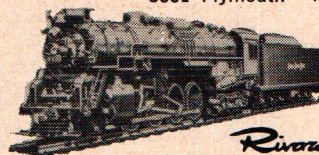
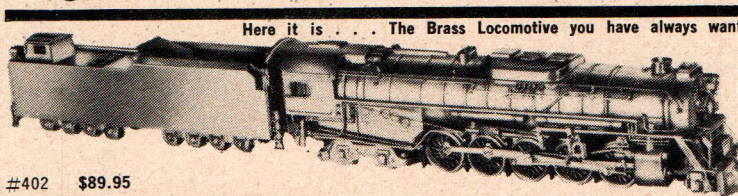
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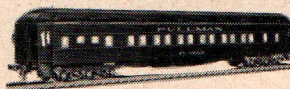
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Our fine Model, with a smooth satin finish, has been recreated with every bit of detail possible and is fully guaranteed for one year. All drivers are fully sprung and flanged. The headlight is controlled by a diode. It goes off when the loco is put in reverse.

WE APOLOGIZE

As pleased as we are that our new items have won such great acceptance from Model Railroaders, we must again apologize at not being able to produce them fast enough. We hope you understand, that you'll be patient, and that you'll place firm orders with deposits at your favorite AHM supplier in order to get early delivery on these magnificent units.

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6260 SANTE FE PULLMAN 350
STANDARD CARS — FULL LENGTH

	S.F.	PENNSY	PRICE
Pullman	6260	6270	\$3.50
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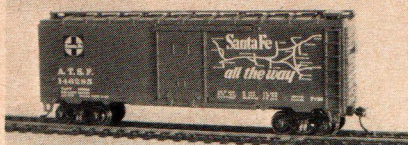
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HO 40' BOX CARS



Kar-Line. The HO line that introduced the newest in colored 40' box cars presents for 1966 a complete set of Santa Fe box cars. We will offer a choice of 13 different lettering diagrams in box car red cars featuring the famous trains of the Santa Fe on one side of the car and their system map on the other. In addition we will also feature 7 cars painted pullman green with yellow lettering. These are just two examples of the exciting selection of road names in 40' box cars in our new list of road names, which also includes for the first time a selection of reefer cars and 50' Plug door cars. See your dealer soon and examine these quality cars. These cars come complete with Central Valley trucks and either X2-F or Kadee Magnamatic couplers.

New 1966 list will be 20 cents.

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(locomotives, cars, trucks, switches, etc.)
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and full baggage. Also some NYC and NP cars. Sounds like a full consist. The Wright MHP catalog of cars and diagrams is yours for a dime.

America's Hobby Center, 146 West 22nd St., N. Y. C., N. Y. 11001, has a new 64 page catalog loaded with clearance items, brand new items, and lots of hard to find pieces. Send a 5c stamp for Rail Bulletin RV12.

Real Like, Box 536, Chula Vista, California, has a new catalog (yours for 25c) describing their complete structure and scenic line. These include, at random in HO, a Santa Fe depot, diesel shop, 4-story brick hotel, fire house (2 bay), power house, large cactus plants and other trees, new reefer body kits, and an O scale signal tower, trees, and other quarter inch items.

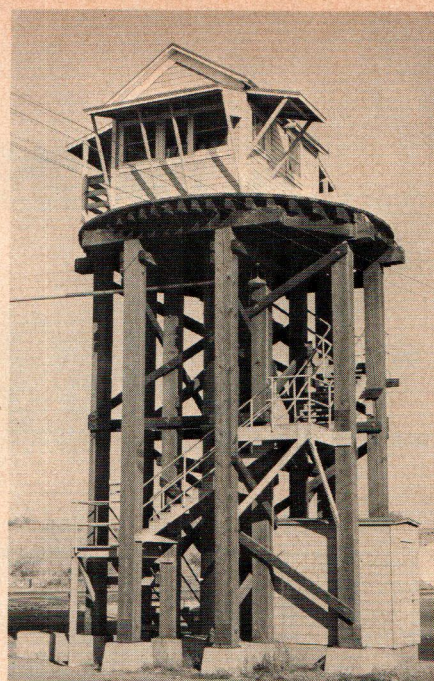
Smooth Side Models, P. O. Box 128, Brooklyn, N. Y. 11219, manufacturers of a new line of streamlined smooth-side full-length HO passengers cars, ran smack into unexpected production delays in tooling. Rather than send out cars with windows not quite up to snuff, they held back until the dies were right. The first kits starting shipping, we are told, in February, with additional items to follow.

Model Railroad Course

Paul Mallory is conducting a course in the fundamentals of model railroading at the Millburn, N.J. Adult Evening School, at the high school. Topics covered include table construction, track laying, switches, and just about everything else needed in making your own pike. Its the first time we've heard of such a course in an Adult Evening School and we're hoping the idea will spread. Paul has written a number of articles for RMC, plus a number of books on the subject, and is an NMRA master modeler.

Pass Duplication

Ed Cook, Box 188, Monmouth College, Monmouth, Ill., bemoans the number of guys who keep bombarding him with passes for their pikes to the point where he has four and five duplicates. Ed has over 1000 passes and tries to keep things organized and wishes other pass collectors could do the same.



Diesel age water tower on the Union Pacific at Riverdale Yard, Utah.

Plan Variations

Letters occasionally come in from readers complaining that plans for a certain loco or car are at variance with local prototypes or photos of the car or loco. Part of the answer is that "diesels ain't all alike". Manufacturers often make variations in fuel tank size, horn type and location, changes in door and window shape and location, and so on. In other instances, our plans may show the original demonstrator, which may differ minutely from the production version.

One case a few years back in which both RMC and our Milwaukee friends printed plans for the same diesel within a few months of each other, but one plan showed the demonstrator and the other the production job. Both were correct and yet both probably varied from units shipped to other railroads.

On 'any plan, where extreme accuracy is desired for your own model, we'd suggest you arm yourself with as many photographs of the prototype as you can get. Be sure the photos are all taken at the same time and are all of the same car or locomotive. Equipment does change from one shopping to the next. Pipes or fittings found on a unit one day might be missing, replaced, or located elsewhere a month later. Modelers who pride themselves on the accuracy of their modelers should make mental notes on these problems and undertake their own research as far as is necessary before starting out on any project. Case in point: the lettering and paint jobs on the Erie-Lackawanna's big 2000 hp. Alco passenger diesels have at least three major variations in two distinctly different paint schemes. Makes it kind of rough on our decal people and model manufacturers!

RAILWAY EXPRESS

This all green car has white lettering and a red and white herald. A most unusual car that belongs on every pike.

SOUTHERN PACIFIC

Here are the more conservative colors of this familiar line. Model is box car red with yellow and white lettering.

SANTA FE

The brilliant color scheme of the Santa Fe car has sides in bright red, roof and ends black, with lettering in white and black.

✓ Pre-painted body. ✓ NP 25 metal Timkin trucks. ✓ NMRA couplers and hardware. Plus that extra fine, rub-on lettering and numbers.

HO 50' PLUG DOOR BOX CARS \$310.00

- Engineered to last
- Smooth trouble free operation
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Each of these 50' Plug Door Box cars are highly detailed, authentic models of the finest quality.

Make up a string with the extra car numbers and assorted data from the rub on transfer supplied in each kit.

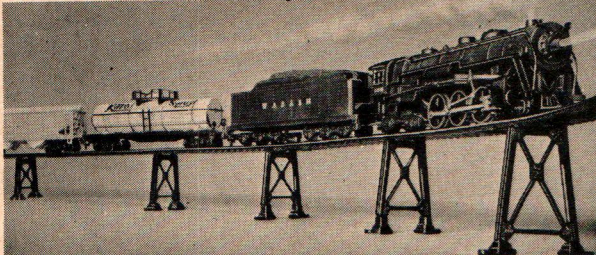
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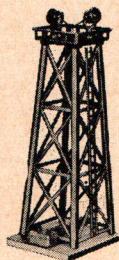
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35785 Coal Loader	4.98	2.59
32654 Rectifier 3 Amp.	7.98	3.98
32661 Powerpack 1 Amp.	10.95	4.39

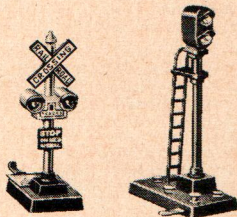
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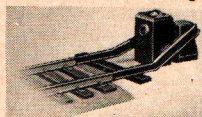
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No. 35202 — **BUMPER.** You'll need plenty of these for siding ends. Includes operating light. On this item we've cut the price in half.
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35250 Dutch Colonial House Kit (Lited)	.98	.49
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35252 Cape Cod House Kit (Lited)	.98	.49
35251 Ranch House Kit (Lited)	.98	.49
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33115 Ballast Car	2.98	1.49
33506 Pennsy Caboose	4.98	2.39
33519 B & O Caboose	4.98	2.39
33536 Pennsy Flat Car	2.50	1.19
C3008 San Francisco Caboose	3.98	1.89
33621 Caboose	4.98	2.39
33623 M & St. L Caboose	4.98	2.39
33618 Erie Caboose	4.98	2.39
C1006 C & O Coal Car	2.98	1.49

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33806 EXPLoding MINE CAR



ACTION CARS



33804 TNT CAR

ELECTRIC REMOTE CONTROL

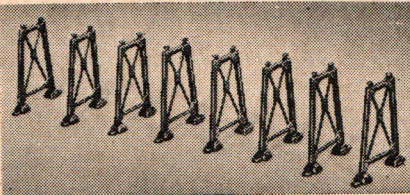


33820 Tie Jector Car

33818 GN Hay Jector Car

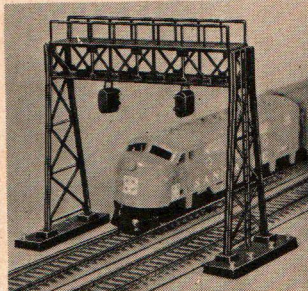


33812 Rocket Launcher Car



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POLKS HO GILBERT



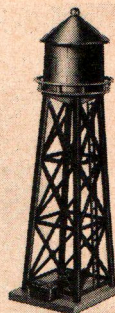
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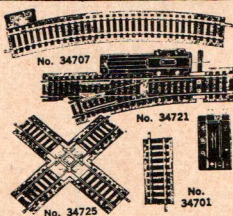
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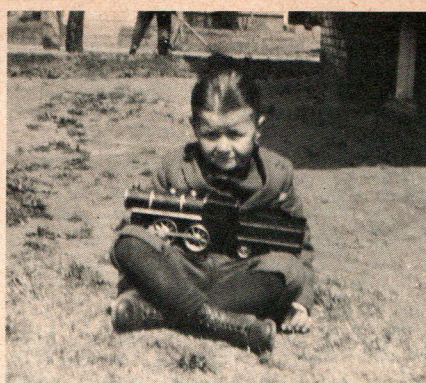
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Oklahoma City is the place, the year is 1924. Already this individual is clutching his big steam loco model. 40-odd years later he is a commercial artist and frequent contributor to RMC. If you haven't guessed, it's Jeff Winslow.

RMC **TIMETABLE**

NOTE: Items for RMC TT are welcome but must be received 6-8 weeks before issue in which item is to be inserted. Please print or type.

NMRA Regional Meets

ROCKY HILL, N. J. June 18. Garden State Div. Meet on premises Pacific Southern Rwy., Washington St. (Rte. 518) nr. Rte. 206. Model Displays, op. hump yard, tower control w/remote cabs, Tech. presentations by PS members. Pre-Meet luncheon. Contact Jack Fitzgerald, 26 Shelley Rd., Kendall Park, N. J. 08824. Phone: (201) 297-3641.

CAMDEN, ARK. June 3-5. Mid Continent Region Convention. Rail trip on Reader RR (Possum Trot). Raffle, slides, movies, model contest, dinner. Further info, contact R. C. Evans, 9202 Clover Hill Rd., Little Rock, Ark.

BRADENTON, FLA. May 13-15. Sunshine Region Spring Meet. Bradenton Cabana. Model contest, movies, clinics, displays, Rail-ette activities. Railfan Ramble via Atlantic Coast Line RR to Rainbow Springs & return. Info. Steven C. Doychak, Manatee County C/C, P.O. Box 321, Bradenton, Fla.

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MANCHESTER, MASS., April 16. Hub Div. Little Convention. Clinics, displays, model display, movies, auction and dinner. By res. \$3.00. Flyers after March 10th from Harold I. Clark, 3 Frederick St., Worcester, Mass. 01605.

LOS ANGELES, CALIF. April 1. Los Angeles Div. PCR-NMRA Annual Auction, St. John's Episcopal Church, 514 W. Adams Blvd., off Harbor Freeway, at 7:30 PM. Auction. Entertainment and refreshments. Info. contact Robert J. Jeffreys, 5311 Sherbourne Dr., Los Angeles, Calif. 90056.

OSHKOSH, WIS. April 2. Winnebago Land Div. Midwest Region Spring Meet. The Pioneer, Oshkosh. 9 AM-9 PM. Clinics, auction, slides, layout tour, displays, special programs for ladies, Fee \$1.00. Awards banquet extra. Entries for Oshkosh Model RR Club's 9th annual model building contest must be reg. by 2 PM. NMRA rules. Info. contact John Franzen, Rural Rte. #1, Box 303, Menasha, Wis.

ALBANY, N. Y. May 20, 21, 22. Northeastern Region, Spring Convention, thruway Motor Inn, Thruway Exit 24 and Northway Entrance. Info. contact Glenn Wagner, Box 262, Delmar, N. Y. 12054.

INDIANAPOLIS, IND. June 3, 4, 5. Midwest Region "Indiana Sesquicentennial" Spring Convention, Sheraton-Lincoln Hotel. NMRA tape slides, live clinics, contests, fan trip, banquet. Info. F. T. Hughes, 7351 Hawthorne Lane, Indianapolis, Ind. 46250.

EDMONTON, ALTA., CAN. April 30. 6th Div. of P.N.R. NMRA Spring Meet. Bonaventure Motor Hotel, 125th Ave. & St. Albert Trail, Edmonton. Reg. \$6.00, starts 12 noon. Tour of Northern Alberta Rwy. Dunvegan Yards Terminal, contest w/Merit Award Judging. Banquet, tour of layouts. Contact J. L. Stevenson, 11619-128 St., Edmonton. Phone 455-4446.

TOLEDO, OHIO. April 29 to May 1. North Central Region Spring Convention, Hotel Hillcrest Toledo. Clinics, exhibits, door prizes, auction, railettes program, award banquet. Complete pkge. members & guests—\$9.50 approx.; railettes \$9.50; children (under 8), \$2.50 or less. Contact John Sherman, 31 W. Clarke Ave., Coldwater, Mich. 49036 or W. N. Konde, 1513 S. Main St., Royal Oak, Mich. Tours to 8 RR facilities.

BIRMINGHAM, ALA. May 6, 7, 8. Southeastern Region Annual Spring Convention. Model contest, movies, clinics, canned and live, layout visits, banquet. Special guests Linn Westcott and John Allen. Info. Jim Thorington, 888 Vermont Lane, Birmingham, Ala. 35226.

RIVERSIDE, CALIF. May 13, 14, 15. PCR-NMRA Annual Convention, World famous Mission Inn Garden Hotel, host Paradise Valley RR. Info. contact W. R. Babb, 2225 Market St., Riverside, Calif. 92501.

Club Shows

NORTH HALEDON, N. J. April 29, 30, May 1, 6, 7, 8, 13, 14, 15. Model Engineers RR Club of North Jersey 25th Annual Show, 569 High Mtn. Rd. "0" Gauge Scale operation. Donation: Adults 35c, Children 25c. Hours: Fri. 7-10PM, Sat. 2-10PM, Sun. 2-5PM. Info. Richard Meade, 91 Elberon Ave., Hawthorne, N. J. Phone 427-2854.

TORONTO, CANADA. May 7, 8. Northeastern S Gaugers' Assoc. 6th Annual Convention, Canadiana Motor Hotel, Toronto, Ont., sponsored by South Ontario Region S Gaugers. Reg. & info. Gerald Mank, 16 Parkend Ave., Brampton, Ont.

KANKAKEE, ILL. May 28. 2nd Get-Together for Train Collectors & Model RRs., Bird Park Fieldhouse, Rte. 17 West. Displays, sale, auction, area collection & layout visiting. Hrs. 9AM-10PM. Refreshments. Donation. Info. Sam H. Griffith, Rte. 2, Kankakee, Ill. 60901.

CARLSTADT, N. J. March 18 thru April 3. NYSME 34th Annual Exhibition, 341 Hoboken Rd., Carlstadt. Hours: Weekdays 7-10 P.M.; Sat. 1-10 P.M.; Sun. 1-6 P.M. Adults 50c; Children 6-12 25c. Visiting model RR clubs welcome Sun. Mar. 27th from 9-12 A.M.

GERBER, CALIF. Every Sun. in April & May. South Shasta Lines op. "O" gauge Model RR show on G. A. Humann Ranch, Rte. #1, Box 455, Gerber, Calif. 96035. 1 PM. 4 PM. Real size pass. carrying 2-ft. ga. train powered by 0-4-0 German built steam tank loco. Museum of antique steam eng. & farm mach. Donation \$1.00 adults; 50c children.

WILLISTON PARK, L. I., N.Y. April 30, May 1, 2. Nassau Model RR Club Spring Show, 174 Hillside Ave., Williston. Hrs. Fri. 8-10 PM; Sat. 2-4:30 PM, 8-10 PM; Sun. 2-5 PM. Adm. by donation. Contact George Hatzfeld, Jr., 143 Laurel Dr., New Hyde Park, N. Y.

MATTAPOISETT, MASS. April 1, 2, 3. The Carl Hagenbeck Ring Circus Model Builders 4th Annual Exhibit, Knights of Columbus Hall, Rte. 6, Mattapoisett. All fields of modeling welcome to exhibit. Contact Joseph Nunes, River Rd., Mattapoisett. Adm. by donation: Adults 50c, Children under 12 25c. Hrs. Fri. 7-9 PM; Sat. & Sun. 1-9 PM.

Club Notices

CULVER CITY, CALIF. The Culver City Model RR Club, HO, is new and looking for additional members. Info, contact Paul Good, 9771 Culver Blvd., Culver City, Calif. Phone: VE 8-7297.

TOLEDO, OHIO. Little Mens Chowder Marching & Model Railroading Soc. HO Gauge 25"x35" layout under construction. Looking for new members. Operating nights each Fri. & Sun. Contact Pete Eisele, 3766 Schneider Rd., Toledo, Ohio 43614. Phone 382-8644.

DOVER, N. H. Club forming. Contact Thomas B. Massingham, 800 entral Ave., Dover, N. H. 03820.

ROCKY HILL, N. J. The Pacific Southern Rwy. Co., Inc. (HO) meeting every Wed. eve., welcomes visitors & prospective members. Contact Spencer Chagnon, Box 186, Rocky Hill, N. J. 08553. Phone: (609) 921-6299.

GARDEN CITY, LONG ISLAND, N.Y. Long Island Div. of Northeastern Region NMRA forming. Anyone interested contact F. W. Skutsch, 56 Commander Ave., Garden City, N.Y. Phone 516 Pl 7-6068; Jim Clokey, 457 Clocks Blvd., Massapequa (Amityville P.O.) Phone 516-598-1356.

SPRINGFIELD, MASS. AREA. Those interested in forming O ga. scale club, contact G. E. Gray, 1139 Westfield St., Apt. 51, West Springfield, Mass. 01089. Phone 781-0219.

CASPER, WYO. Central Wyoming Model RR Assn. welcomes new members and visitors to 2nd fl. Burlington frt. house, reg. meetings Fri. night 7:30, HO std. ga. op. Contact G. R. Cheatham, Jr., M.D., 313 S. Melrose St., Casper 82601.

MISSION, KANSAS. Shawnee-Mission HO Club, The Brush Creek & Western RR, welcomes new members. Wed. eve. 7-9 at 5905 Outlook, Contact Al Feiss, 629 W. Oak St., Olathe, Kansas 66061. SState 2-1590.

FARMINGTON, N. M. San Juan Valley RR Club invites visitors and prospective members to meetings Thurs. 8 P.M., County Fairgrounds Bldg. West Wing. Those under 20 yrs. old must be accompanied by adult. Info. call Bob Halsted at 325-1380.

GARDENA, CALIF. Harbor Model RR Assn., 16020 S. Figueroa, Gardena welcome all interested to meetings Fri. 8 P.M. Call Robert Metcalf 329-5522.

BROOKLYN, N.Y. Brooklyn Soc. of Model RRs, 285 Linwood St., Brooklyn. HO ga. Meetings Wed. 8 P.M. All interested welcome. Contact Al Marx. IN 7-8565.

NORRISTOWN, PA. The Nor-Mont Club, 35 Jefferson Ave. (HO RR & trolley) has changed its meeting night to every Wed. New members welcome.

CLINTON, MASS. Nashua Valley RR Assn., 19 High St. op. extensive HO layout, w/traction section. Memberships available. Info. write Theo. A. Martin, at Club.

MASSAPEQUA, LONG ISLAND, N.Y. Long Island Modellers Assn. HO, HO#3 is open for new memberships. Contact Graham Harvey, P. O. Box 231, Rockville Centre, N. Y. Call RO 4-6000 days or TA 6-2083.

LONG ISLAND CITY, N.Y. Empire Model RR Assn., Inc. (HO), 34-05 44th St. welcomes new members over 21. Every Tues. 8 PM. Visitors welcome op. night 1st Tues. of month. Basement entrance on 44th St. Info. Wayne Foote, 37-68 64th St., Woodside, N. Y. 11377. Phone (212) 335-9496.

Fan Trip

RUTLAND, VT., May 7. Steam pwr'd. 100 mile train trip over rails of Green Mountain Rwy., sponsored by Brotherhood of Live Steamers, Bellows Falls, Vt. to Rutland and return. Chicken barbecue dinner served at Rutland. Fare, incl. dinner \$9.75; children under 12 \$6.00, under 4—free. Dep. time 10:30 A.M., E.D.T. from Riverside Sta. 2 mi. north of Bellows Falls on Rt. 5. Contact Edgar Kruckeberg, Box 173, Garwood, N. J. 07027, or Howard Crotty, 8 Walnut St., So. Hadley Falls, Mass. 01043.

Listings

Club secretaries are invited to submit coming events notices to the RMC Timetable. Allow 6-8 weeks or more. Give name of responsible club official.

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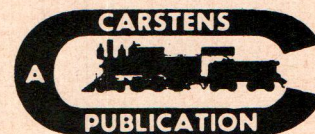
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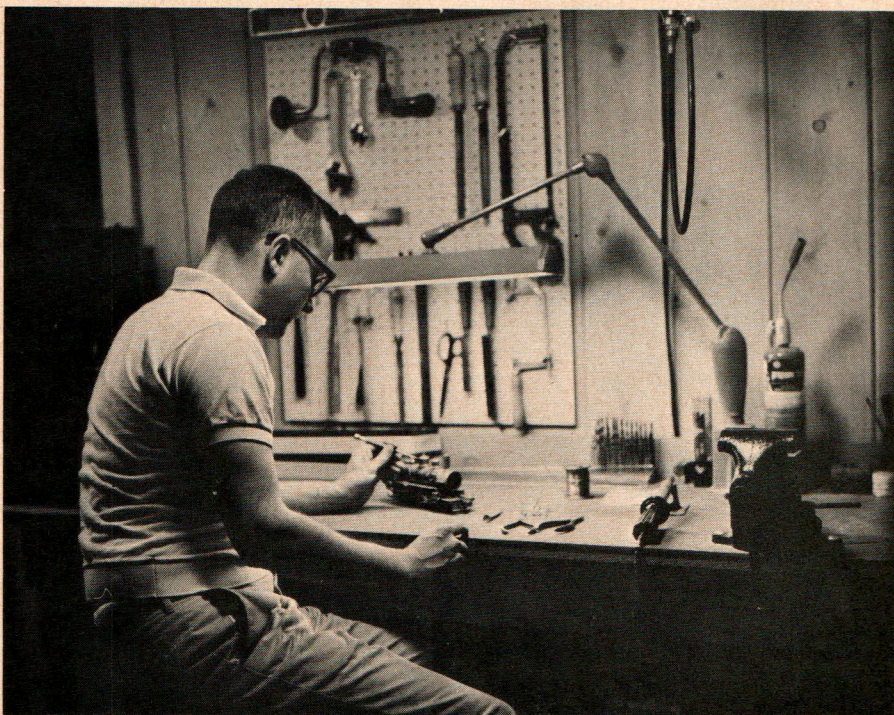
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IDEAS MAKE A RAILROAD

by Paul Larson

No model railroad can hope to become a true replica of the prototype if it has not been planned as a real railroad would be, right down to the last

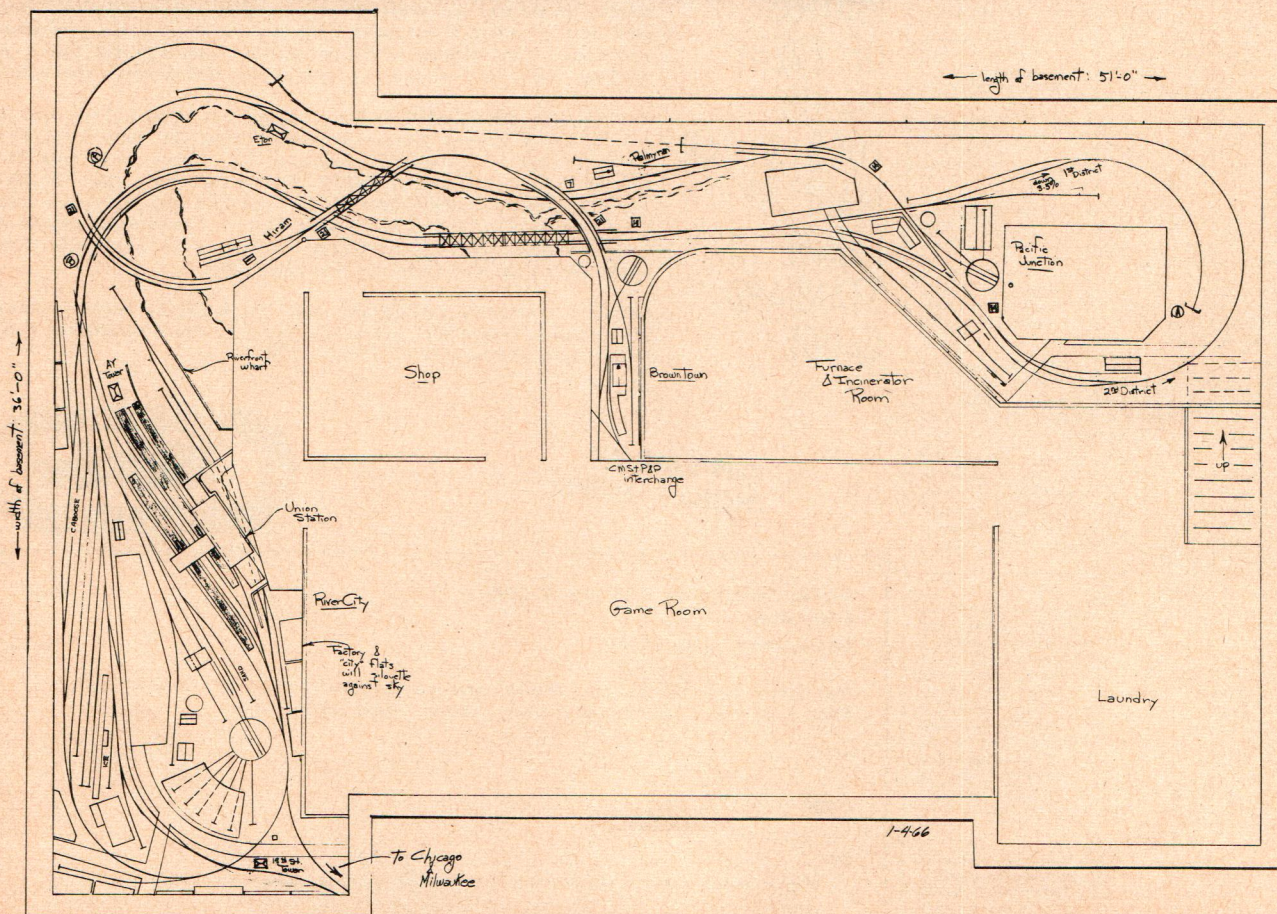
spike and tie plate. Paul's new Chicago, Neosho River & Pacific is set in the 1930's. The scale is 0, but could just as readily be your own gauge.



PAUL E. LARSON has been an active scale model railroader since 1939, when he started in HO with a Gilbert ready-to-run train set. An avid train-watcher, photographer, writer, and scratch-builder, he has written literally hundreds of articles on all phases of model railroading, and many of his cars, locos, and structures have been prize winning efforts. For a number of years Paul was editor of Model Railroader Magazine.

Larson believes that the future of model railroading must lie in quality and a commitment to the creative skills of the serious hobbyist.

His new railroad, now under construction, will be the subject of a variety of articles in RMC. Paul is director of communication for the Jos. Schlitz Brewing Company, and lives in Fox Point, Wisconsin, a suburb of Milwaukee. Presumably the new railroad will serve an on line brewery! 🚂



Six years ago, when I dismantled my HO Mineral Point & Northern, I did it with mixed emotion. First of all, there was sadness at presiding at the end of a railroad that had brought much satisfaction and many hours of pleasure. To me, and to those who joined in its operation, the MP&N was very much a real railroad.

Beyond this feeling, however, was a spark of something that became more and more important as time passed. I gradually became aware that I had built just about everything I had wanted to build in HO, and that what I really wanted was a new challenge and a new opportunity. For some years, I had had more than a flicker of interest in O gauge (I remain a traditionalist. "O scale" still sounds clumsy to me!), and the demise of the MP&N left no commitment to HO.

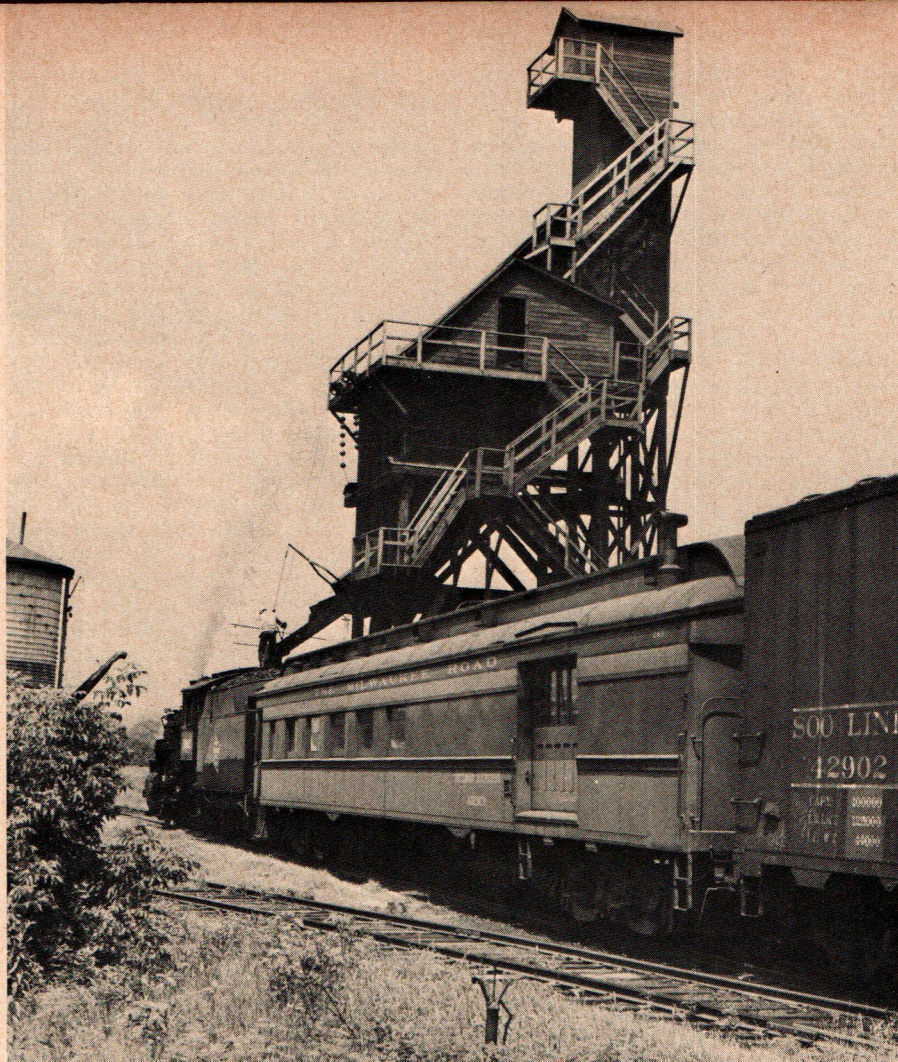
Thus, when a new home with an adequate basement provided possible right-of-way, there was never any doubt about the new railroad being O gauge. O gauge has many great merits, and a few weaknesses. For my part, the size is rewarding in both sight and sound. It is a pleasure to build in O gauge, and much to be built. And there is no substitute for the clatter of O gauge wheels across a turncoat or crossing. *This* is a sound of substance, a solid sound—a sound of railroading!

I did become involved in conflicts with myself on what kind of O gauge I would build. As a modeler with a basic belief in scratch-building, there was much merit in building "pure" 1/4" scale, with absolute scale wheels and flanges, absolute track gauge and the like. I talked myself out of this level of purity because I also believe in building a total railroad, and I wanted to use as many standard components as possible. In recent years, NMRA standards have greatly improved the appearance of commercial wheels, and the use of the usual track gauge of 1 1/4" instead of 1-3/16" did not seem to detract from the total purpose. Although "pure" 1/4" scale wheel sets are available, the thought of wrestling with problems of regauging locomotives was just too much.

Obviously, what I'm saying is I'm lazy! Yet I simply did not want to become bogged down in certain kinds of mechanical difficulties that might stay me from creating a total "stage" where the glory and the drama of railroading could be enacted.

With this trauma out of the way, I then faced the problem of what kind of railroad to build. This is probably the most important decision that any modeler must make, for it is the one that crystallizes many things for many years. A bad decision can create a layout instead of a railroad.

As many of you know, this matter of concept is something I have written much about in the past. It is always difficult to tell anybody how to design a railroad because one never knows what the other guy sees in railroading. And even if you know



Coaling station at Pacific Junction will be patterned after this tall facility at Gratiot, Wis., on the Milwaukee Road. An Archaic bucket loading station is planned for the small depot at Browntown.

yourself what you see, it is often difficult to translate ideas into a design that will fit in a basement!

My own design problems were many. First of all, the HO MP&N had been set in the 1912 era. I had found, however, that this era kept me from using certain favorite steel cars. Certain favorite locomotives were also out, along with an incredible number of major and minor items that were attractive from the operating or detail point of view. Although, for example, I do like lower-quadrant semaphores, I also like the simplicity of color-light types. (Walthers has some dandies that are about as close to scale as a signal can get). And while on the subject of signals, trackside functional details never look right to me unless they're painted aluminum. In 1912, who had aluminum paint? Nobody. It was too expensive.

What I needed was railroad set in an era that offered more scope. Finally, after thinking about this whole problem for several weeks, I settled on the early 1930's as the most logical choice. This era of my boyhood offered a great collection of my favorites in railroading and the American scene. There is, I believe, a certain amount of emotional involvement in every good layout design. If

your goal is a railroad instead of a layout, you've got to "feel" the mood you're creating onstage in your basement.

Let me explain what I mean. Too many years ago, I used to stand alongside the Santa Fe at Holliday, Kansas, and watch the evening "parade" of great trains, both passenger and freight. The excitement there was tremendous, as trains were routed from one track to another, or maneuvered via C.T.C. around each other, at speed, on the double-track main. This drama, or something close to it, would have to be in my new railroad.

Those trains were always coming from someplace, and going someplace. The people in the lighted cars were going from one world to another. I knew that my new railroad would have to create favorite sights like these—and many more.

And I suppose that, over the years, the most exciting part of railroading was the way it tied the nation together. The West was possible because of railroads, and I wanted a design that captured this spirit—the movement from the heart of the nation to the West.

It's possible, of course, to go on and on listing and describing such favorite scenes and ideas. These first,

though, were such basics, that I emphasize them purposely. They are the keys to the emotion, if I may call it that, that is designed into the new railroad — named Chicago, Neosho River & Pacific because such a name captures the spirit of railroading that I find so exciting. The old Mineral Point & Northern never had this excitement. It was too localized, almost as limited in concept as narrow gauge.

The Design

Right-of-way for the CMR&P was readily available in my basement, an ample 36 feet wide by 51 feet long. By utilizing an L-shaped portion of the basement, I could have the benefit of the long dimensions, and still leave a large game room and laundry room space. The only problem was that the curves really filled the ends of the L. I decided that 5 ft. radius on the main line would have to do, and though this is adequate for moderate locomotives and long passenger cars, it isn't as satisfying as an eight

or ten foot curve would be. I might add that the locations of the partitions were dictated by locations of beams and columns, and are a compromise of various factors.

As you'll note from the drawings, the CMR&P that is "onstage" is a segment of an east-west railroad running from the Midwest to the West. At River City, a major terminal, the railroad comes onstage, and the action is in full view on the main line until it goes offstage in the tunnel just beyond Eton. A diverse route to the West leaves the main line at Pacific Junction and descends offstage to a meeting with the 2nd District beneath the River City terminal. Because these two routes come together beneath the yard—with its wiring, switch machines and the like, construction of the offstage trackage (which includes a return loop with a holding track) will be tricky.

A branch also leaves the main line at Pacific Junction, and climbs

through a long tunnel to emerge high on the river bluff where it can sweep back to Hiram and ultimately to Browntown, where there is a "dummy" junction with the Chicago, Milwaukee, St. Paul & Pacific. The dummy junction is a useful device that helps tie the onstage CMR&P to the rest of the world.

The main line is just that—a first class, high speed route, heavily built and signaled for two directions on the double-track segment. The double-track segment will provide some very exciting passing of trains at speed, and as they come off the 2nd District, there'll be questions of timing in getting trains over the crossover before another train, heading up from River City or from the 1st District, arrives.

In character, the CMR&P is designed to provide contrasts. The main line provides the big time action, the branch to Browntown provides the quiet, granger railroad atmosphere. This contrast gives the opportunity for a variety of rolling stock and motive power. Right now, I'd guess that the CMR&P will stick with Pacifics and Mikados on the main line, use a Ten-Wheeler and a Mogul on the branch, and maybe have a Consolidation for way freight duty. At River City, an 0-6-0 will handle switching, although as things develop, two switchers may be needed.

Obviously, the CMR&P requires more than one person to run it fully. At least one person is needed at River City, though two could be used here, one for freight and the other for passenger traffic. An operator is also needed at Browntown, and another at Pacific Junction, though these could double as engineers.

However, there are a number of variations. First, the main line can be set up to allow a train to run continuously, loop to loop, and a single person could then operate the branch or switching at any of several points. Then, by splitting duties amongst a larger number of persons, it would be possible to assign men as operators at such remote spots as Eton—a point where the management already has a nifty mechanical interlocking ready to install.

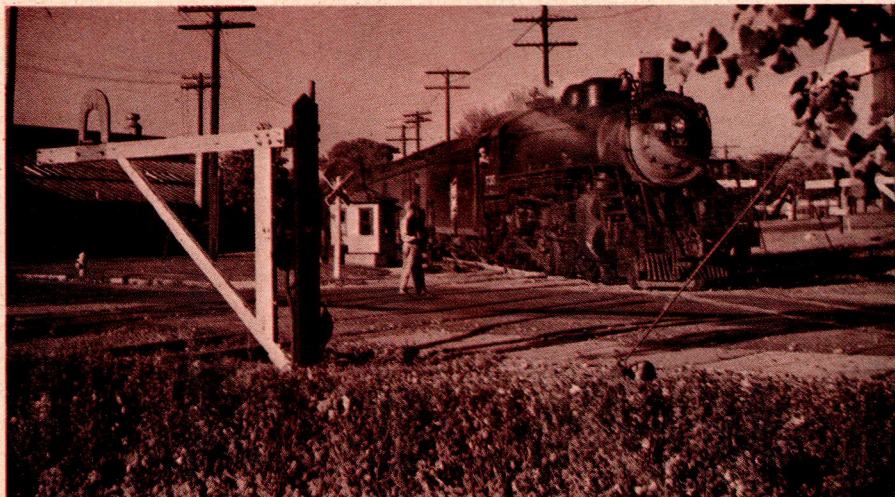
Part of the fun of this railroad—and I'm not ashamed to call it fun—will lie in the honest-to-gosh need for telephone communication. As on a real railroad, it will not be possible to see everything at once. Men at remote spots will be compelled to coordinate their operations via phone, just as prototype operators do over miles of countryside. This "problem," if indeed it can be called that, heightens the effect of distance.

All in all, the CMR&P design translates ideas, dreams and things into a practical onstage, offstage operation that can be built—and it is being built right now.

Browntown on the CNR&P will feature a dummy junction with the CMSTP&P, having hand operated dummy gates. Shown is Soo No. 2 in 1954.



Most likely candidate for the CNR&P's depot at Pacific Junction is this Soo Line structure at Junction City, Wisconsin. Archtypal structure of wood is a natural for almost any model railroad.





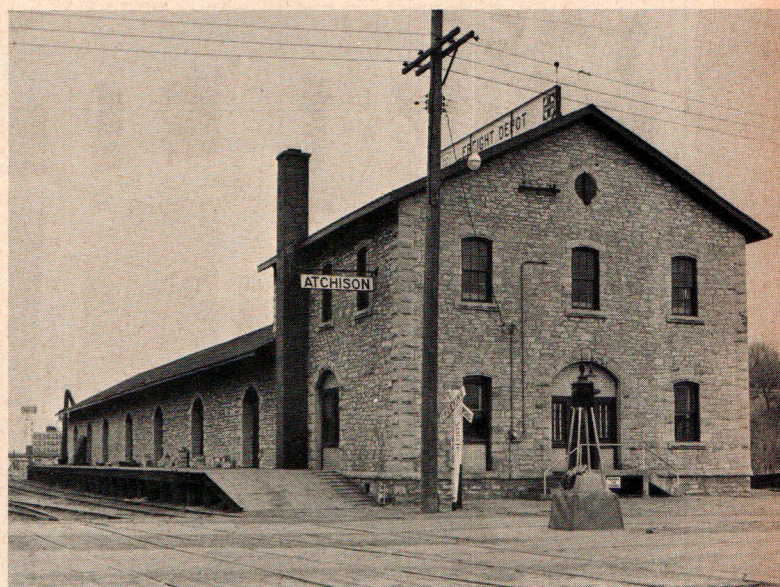
Pacific Junction will feature town flats such as these Weston, Mo., structures. This is Americana, carefully chosen to blend into pike.



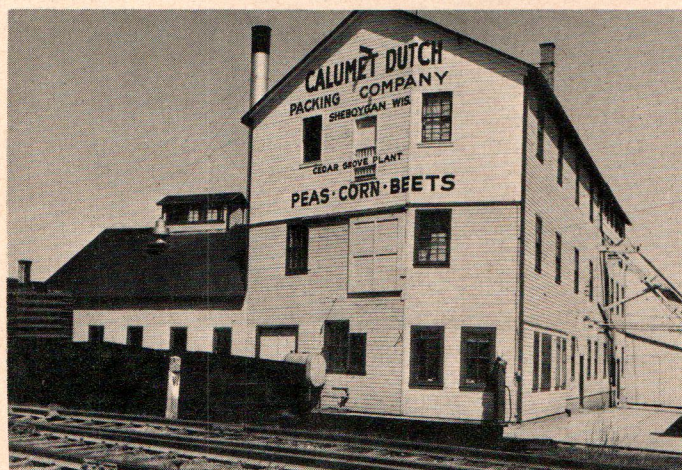
Depot at Browntown will be modeled after depot at Browntown, Wis., on Milwaukee Road's Mineral Point branch; has Victorian flavor.



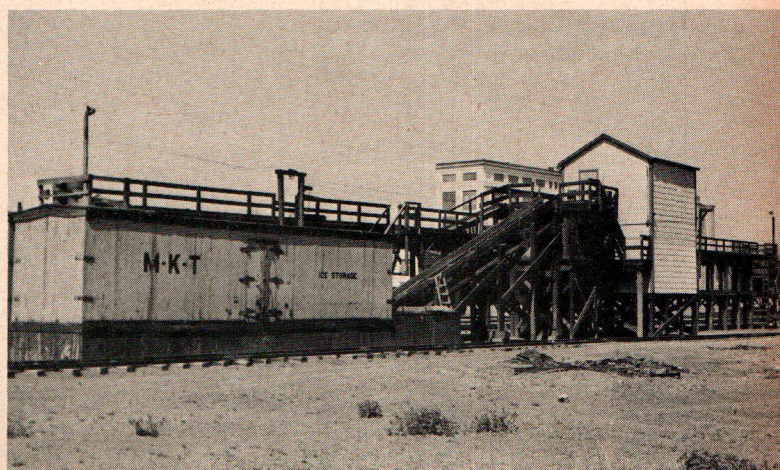
Rarely modeled but often seen are buildings such as this corner property at Galena, Ill., which help sets the pike's overall mood.



Santa Fe museum piece at Atchison, Kansas, is large. Reducing to half its length would make it more useful to most model railroads.



Whether modeled completely or only as a flat against the wall, small industries such as this cannery provide much needed revenue.

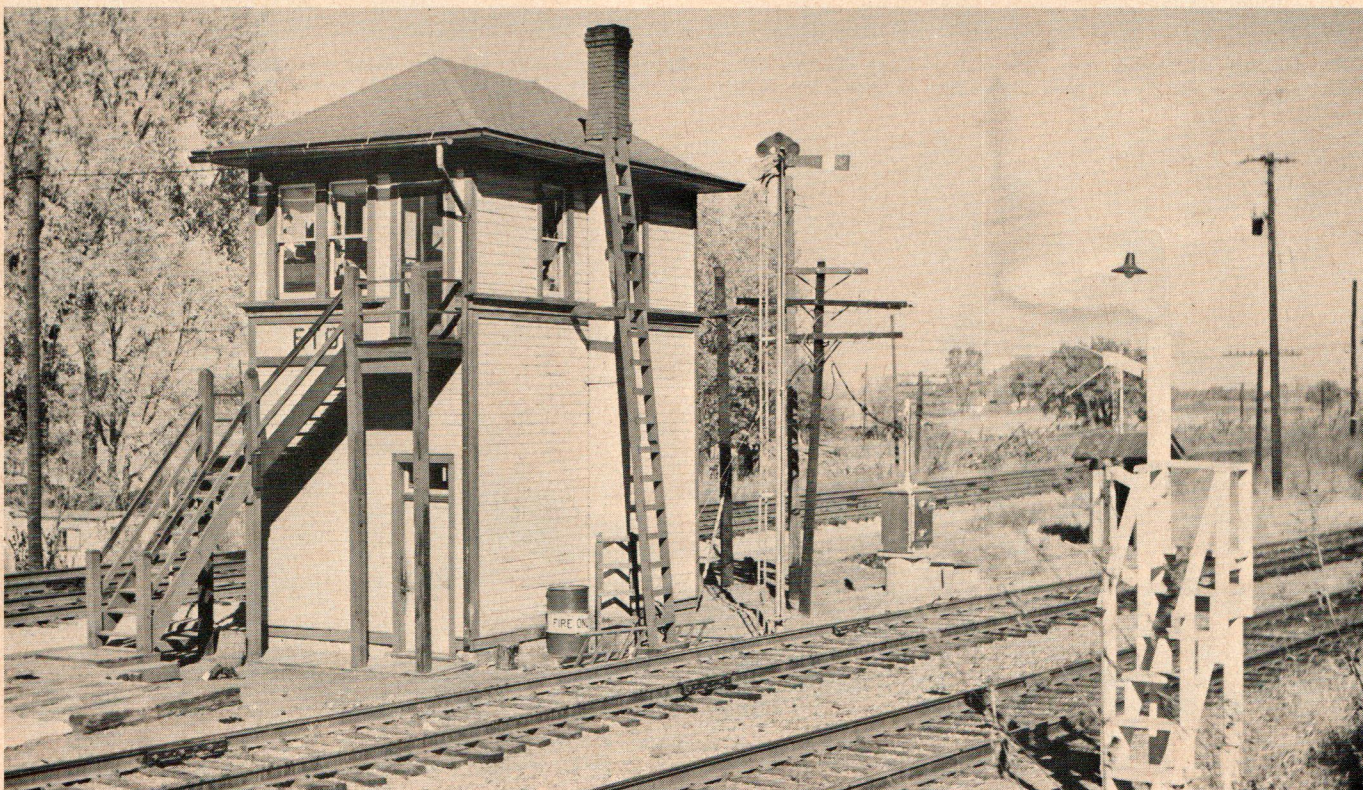


The Katy's old icing platform at Kansas City is gone but photos and data will help build model to be installed at River City.



Main line excitement at Holliday, Kansas, west of Kansas City, inspired author to design Pacific Junction with single track diverging routes feeding into and out of CTC portion of double track main. Wooden interlocking tower is fast vanishing design.

Eton tower on ATSF at Eton, Missouri, is loaded with details easily rendered into accurate, authentic models. Model will feature a classic mechanical interlocking machine of 1915 era.



Chicago, Neosho River & Pacific Points of Interest

RIVER CITY—Midwestern city of perhaps 750,000 population . . . Major terminal and division point on the CMR&P . . . facilities include classic union station, five-stall roundhouse . . . Light car and locomotive repairs done here . . . all trains change motive power here . . . through freights are shuffled, through passenger trains get diner and/or sleeper added to consists . . . certain passenger trains also drop entire cars of mail and express, or pick them up. Industry here is diverse (done mostly with "flats" against a sky backdrop) and includes a riverfront dock, with facilities for handling grain via barges. A stern-wheeler will probably be tied up here.

KANSAS RIVER VALLEY—Major scenic feature of this segment of CMR&P route . . . Right-of-way winds at three levels along typical Midwest river bluffs. Trees and vegetation will be done in early Autumn colors, with mixture of green and bright hardwood leaves.

PACIFIC JUNCTION — Typical "railroad town" that grows around an important junction. Fueling point for some through trains . . . home base for locomotive, crews and combine that operate on the branch only. Browntown train meets mainline trains . . . once a day brings at least one car of mail and express from CMStP&P interchange to be picked up by the Fast Mail . . . town "flats" here will be a typical Railroad Avenue . . . water tank plus water columns.

PALMYRA — Tiny station, with spur, nestled against the bluff as the route drops toward the river. Spur services a cattle pen and loading dock . . . country lane leads away from trackside, suggesting village "off-stage."

ETON—Tower and spur . . . mechanical interlocking controlling siding. Lower quadrant semaphores . . . Service structures and agent's home will be built here.

HIRAM—Single spur servicing feed mill. End of climb from Pacific Junction.

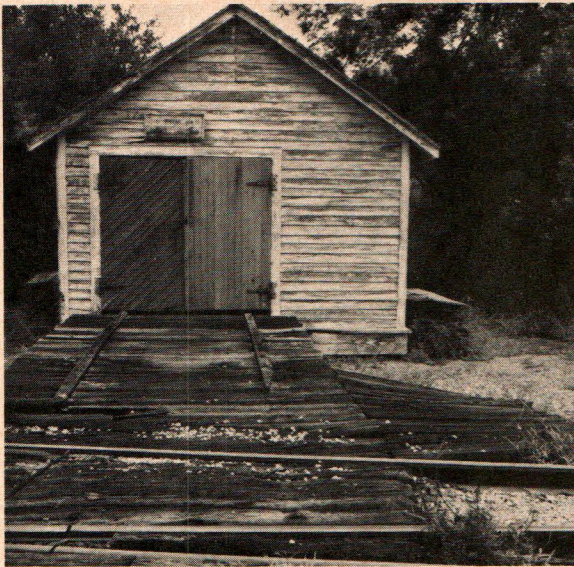
BROWNTOWN—End of CMR&P branch . . . interchange with CMStP&P. Small industries . . . turntable . . . coaling station and water tank.

You'll be reading more about it in coming months! 🚂

Handcar & Storage House—L & N

Some modelers overdo the weathering bit but this venerable L&N shanty has been given the entire treatment by old mother nature.

by Joe Wilhelm



Front view of L&N handcar and storage house at Bay St. Louis, Mississippi. Prototype is painted in greenish grey tones of L&N. Now badly weathered, unit is no longer in service.

It's hard nowadays to find any railroad structure or car more weathered than some of the so-called weathered models we see. We all seem to be trying to outdo the other in the extremes of weathering. Some of the mixtures I have seen used and heard described are unbelievable in their contents and methods of application. I should not be at all surprised to see someone use actual mud and apply it with a whiskbroom.

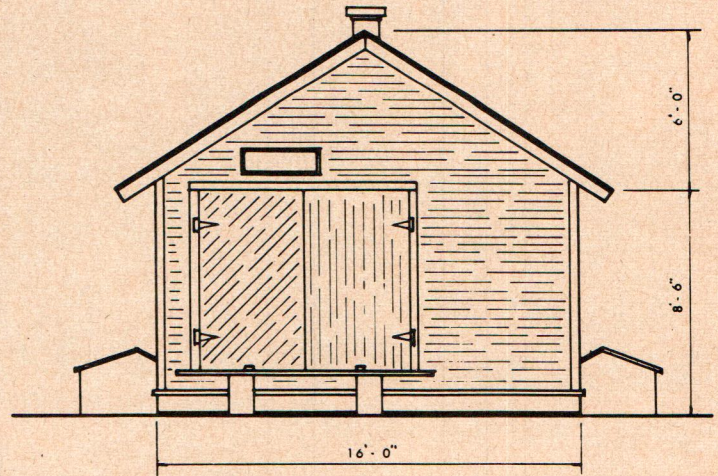
Be that as it may, here is a structure that is really weathered! It stands today in the small yard of the Louisville and Nashville in Bay St. Louis, Mississippi. It is just a short distance from the long wooden bridge of the railroad across Bay St. Louis. Just to the left of the structure is the finest old turntable I have ever seen.

I hope to present a drawing of this in a subsequent article.

Many methods of construction can be used for this Handcar House, I think I would be inclined to do it with Northeastern siding. The tarpaper roof is interesting and very easy to do. The house will give us a marvelous opportunity to apply judiciously, our weathering techniques. The paint is peeling, boards sagging and metal parts rusting badly from the salt air in the vicinity. The actual structure is painted in the greenish grey tones of the L & N.

The building is no longer in use, but in days gone by it was a garage for section cars used for track inspection, and for the storage of track working tools and small track parts, such as spikes and fishplates.

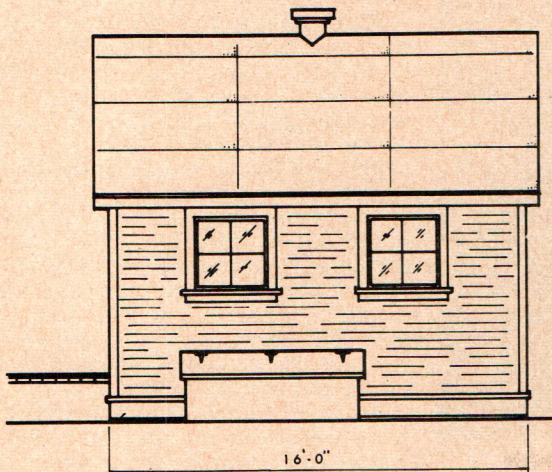
The photos and drawings should give ample information for construction of a detailed model. The rear of the house is plain with no windows. A nice touch would be to have the lid of one of the outside toolboxes open to show the tools inside.



Photos by Joe Wilhelm



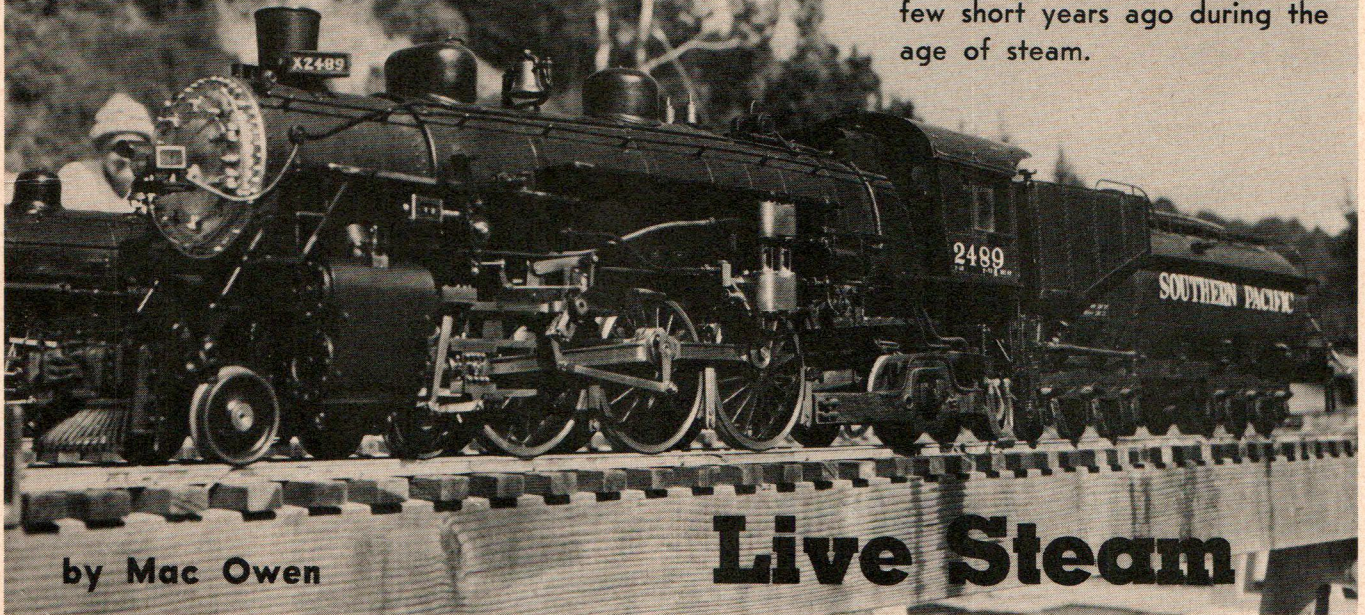
Tarpaper roof shows up in side view along with two window openings. One of the doors looks if it were a somewhat later replacement.



Interesting touch is the sagging board revealing the sagging studding. Its a tiny little building of a bygone era, no longer needed.



Live steam model railroading captures the very pulse beat of real railroading as it was only a few short years ago during the age of steam.



by Mac Owen

Live Steam

Ralph N. McChesney, Manteca, California, built this classic one inch scale Southern Pacific P-10 series Pacific. Ralph figures over 3000 hours work went into the loco over a 3 year period. Oil powered model can be controlled from car behind. Photo taken at Golden Gate Live Steamers annual spring meet, Redwood Park, Oakland.

DESPITE the fact that I am an HO fan, I must report on my recent experiences with live steam model railroading. For years, I had been under the impression that live steam must be out of proportion, oversized like old toy trains. But what I saw in California at the spring meet of the Golden Gate Live Steamers, in Redwood Park, Oakland, California, really excited me, for here was a whole new field of scale model railroading. This is a very active group, operating a few miles south of Tilden Park, in the Oakland hills, across the bay from San Francisco.

1½" scale seems to be the favorite out in California, despite many who favor 1" scale, plus some 15" gauge enthusiasts. Elsewhere, ¾" scale is enjoyed, along with ½", and even O scale.

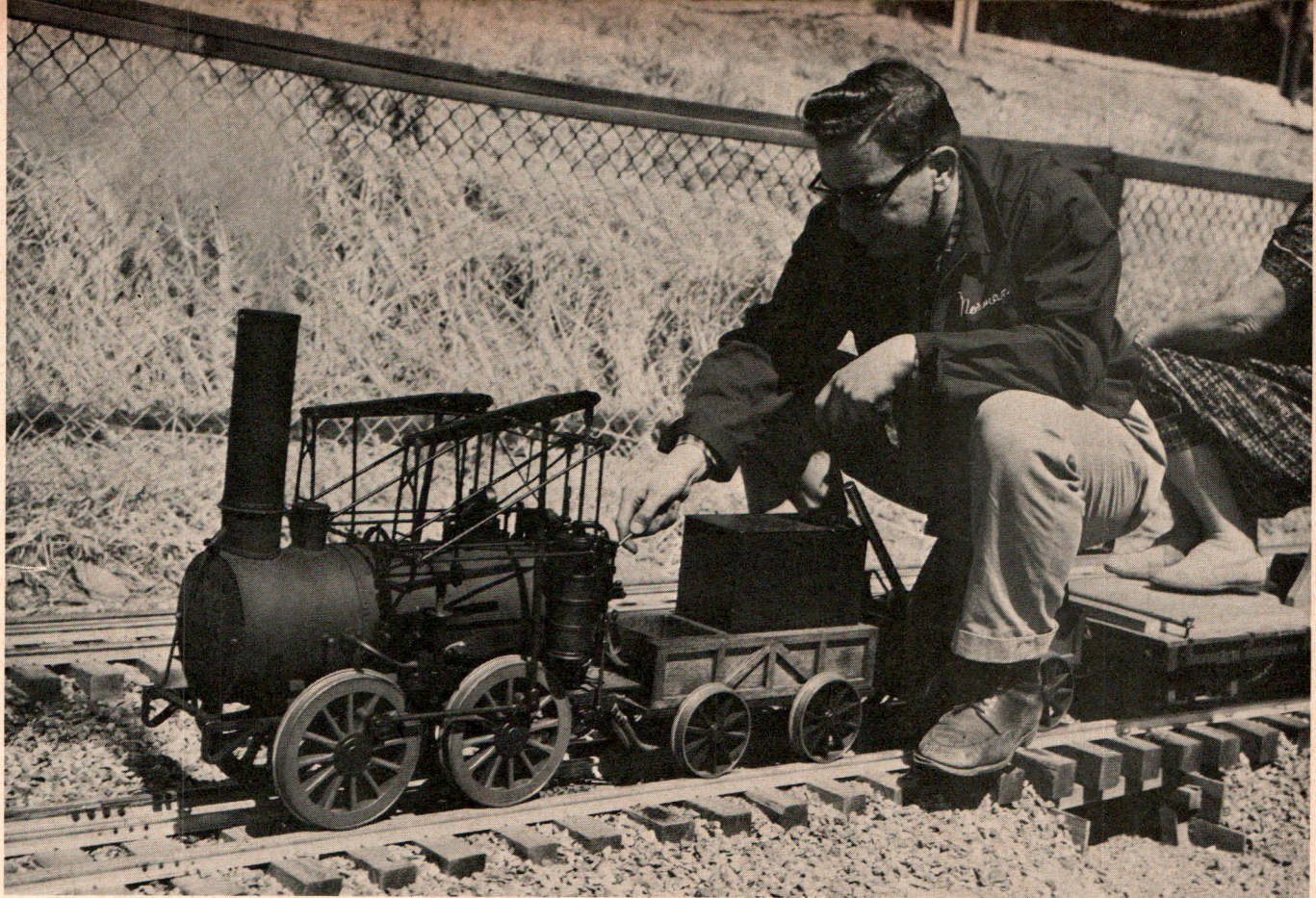
Locomotive kits and parts are available from several suppliers, notably Little Engines and Harpur Loco Works. It is possible to completely scratch build a live steamer, if you have the machine shop facilities and know-how. Much time can be saved by buying kits or at least the necessary component parts. These are offered unmachined at relatively low prices, and also in semi-machined and completely machined form. Locomotives are also available completely assembled and tested for those whose pocketbooks can stand the tariff.

At least five California clubs offer ample operating opportunities for modelers whose property doesn't allow for track laying. Similar clubs are found across the country.

Whether you're an old timer who misses the roar and the smell of hot grease and burning coal, or are of the younger generation who missed the great days of steam, live steam model railroading is well worth investigating.

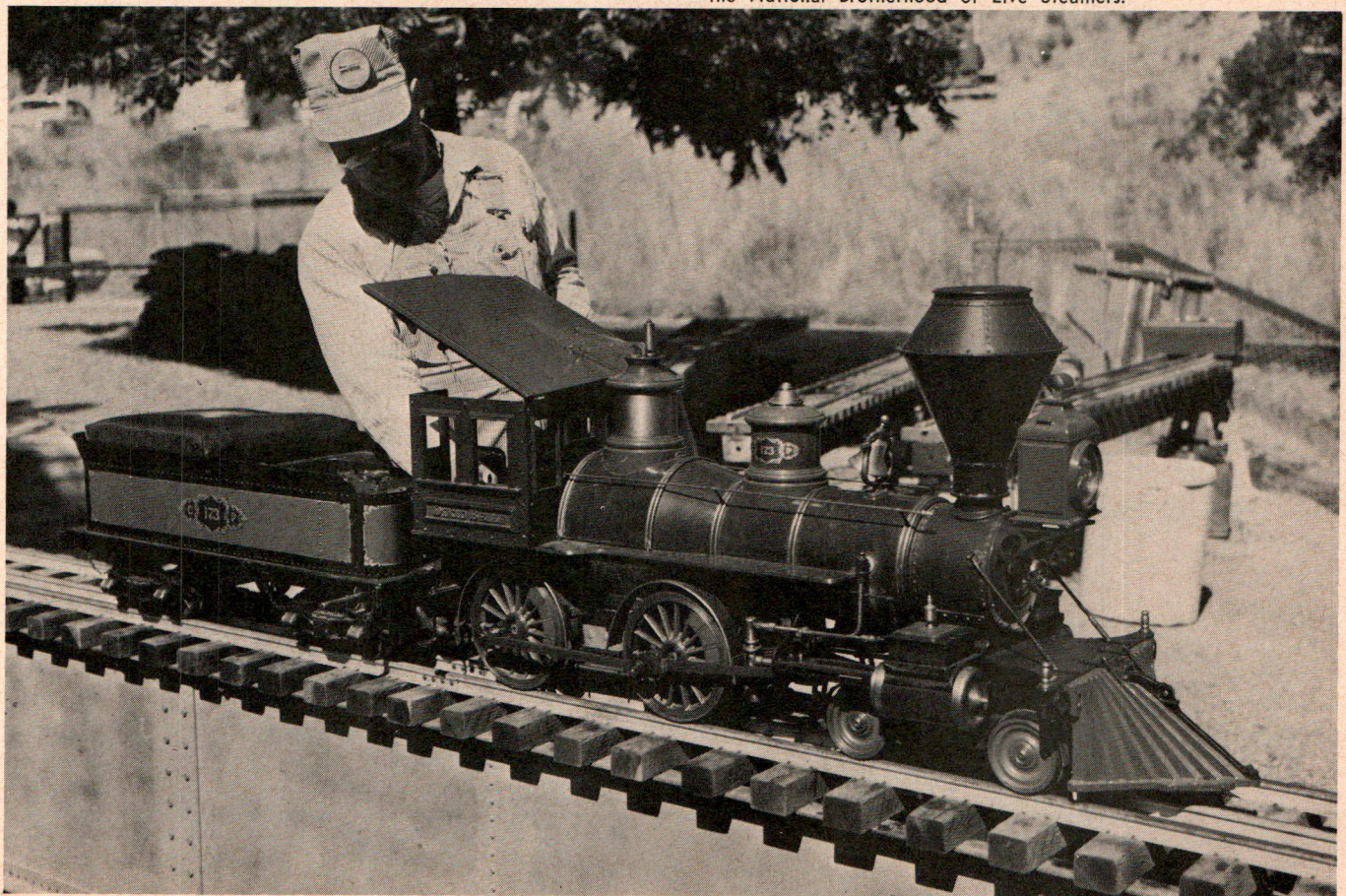


1" scale Reading 0-4-0 camelback cost builder Terry Taylor, of Castro Valley, California, only \$186.60, representing cost of rough castings which he finished himself. Completed model can also be bought for \$1,678. Kits and catalogs for live steam locos, cars, and accessories and track appear regularly in this magazine.



Unusual 1½ inch scale live steam model of the early Stourbridge Lion, pioneer Delaware & Hudson Railroad loco. Owned by Norman Oellerich, loco was hauling a flat car with two passengers and was keeping up with the best of them. Loco is fired with coal.

Harry Dixon, Castro Valley, California, spent ten years building this beautifully crafted American from prints and castings obtained from Walt Disney. Orininally 7¼" gauge, Harry had to do some rebuilding when the Golden Gate Live Steamers adopted the wider gauge. Loco is coal fired. Harry is active in both the Golden Gate Club and the National Brotherhood of Live Steamers.



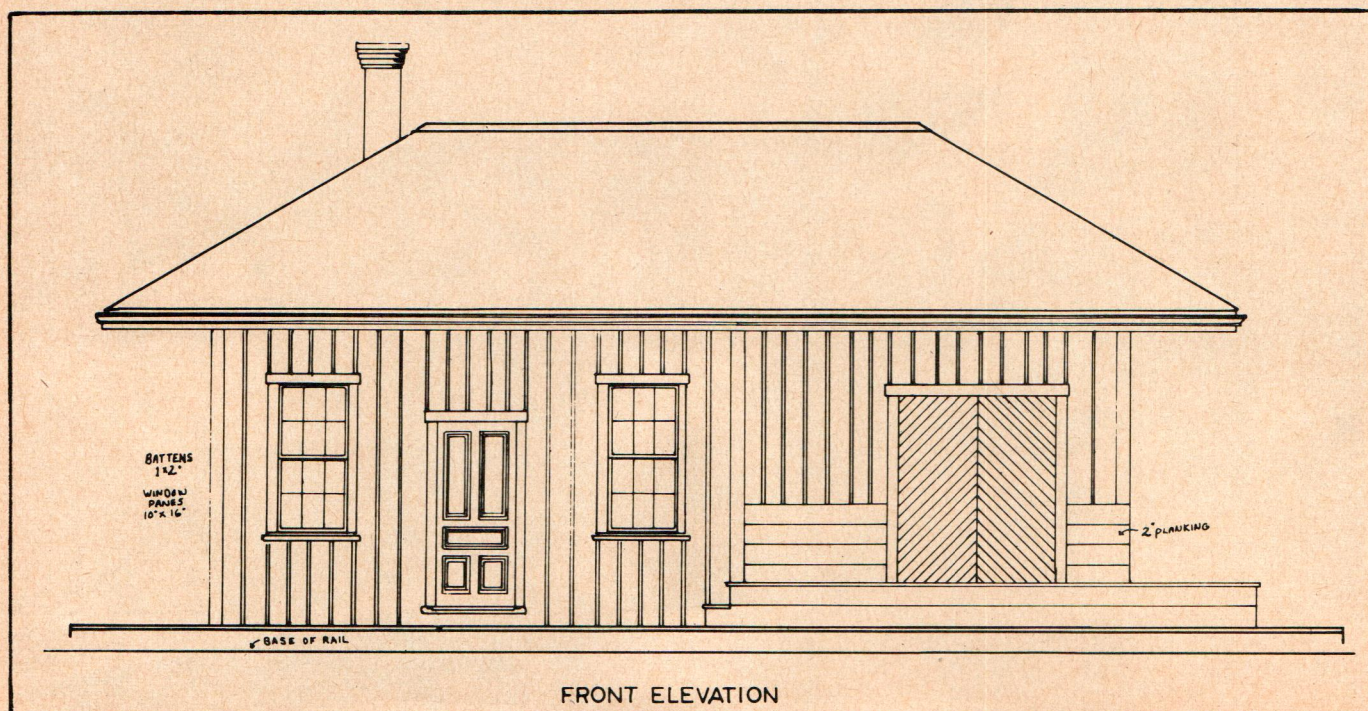
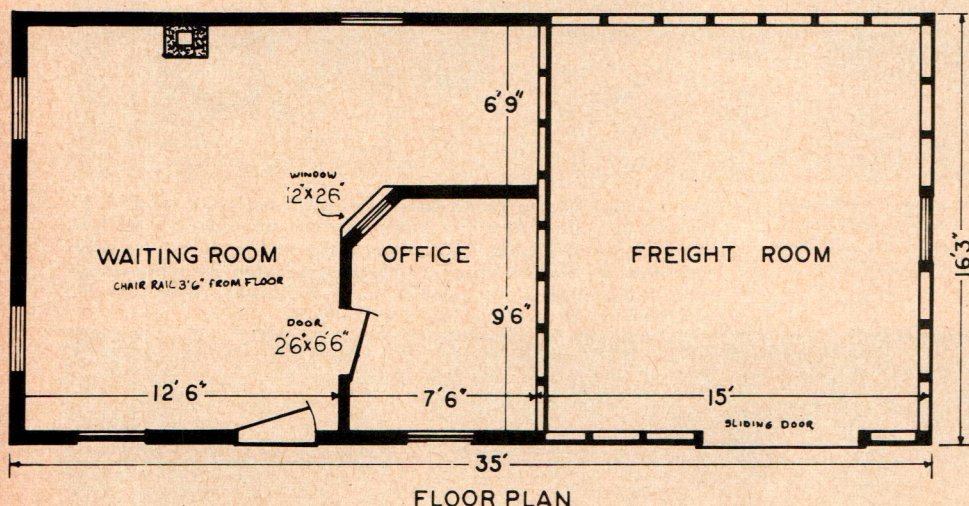


Reeds Mill Depot

by James D. Frary

Once an agency station, Reeds had been abandoned when this photo was taken. Photo shows the differences between the station as built and the original plan. Today few signs of road remain.

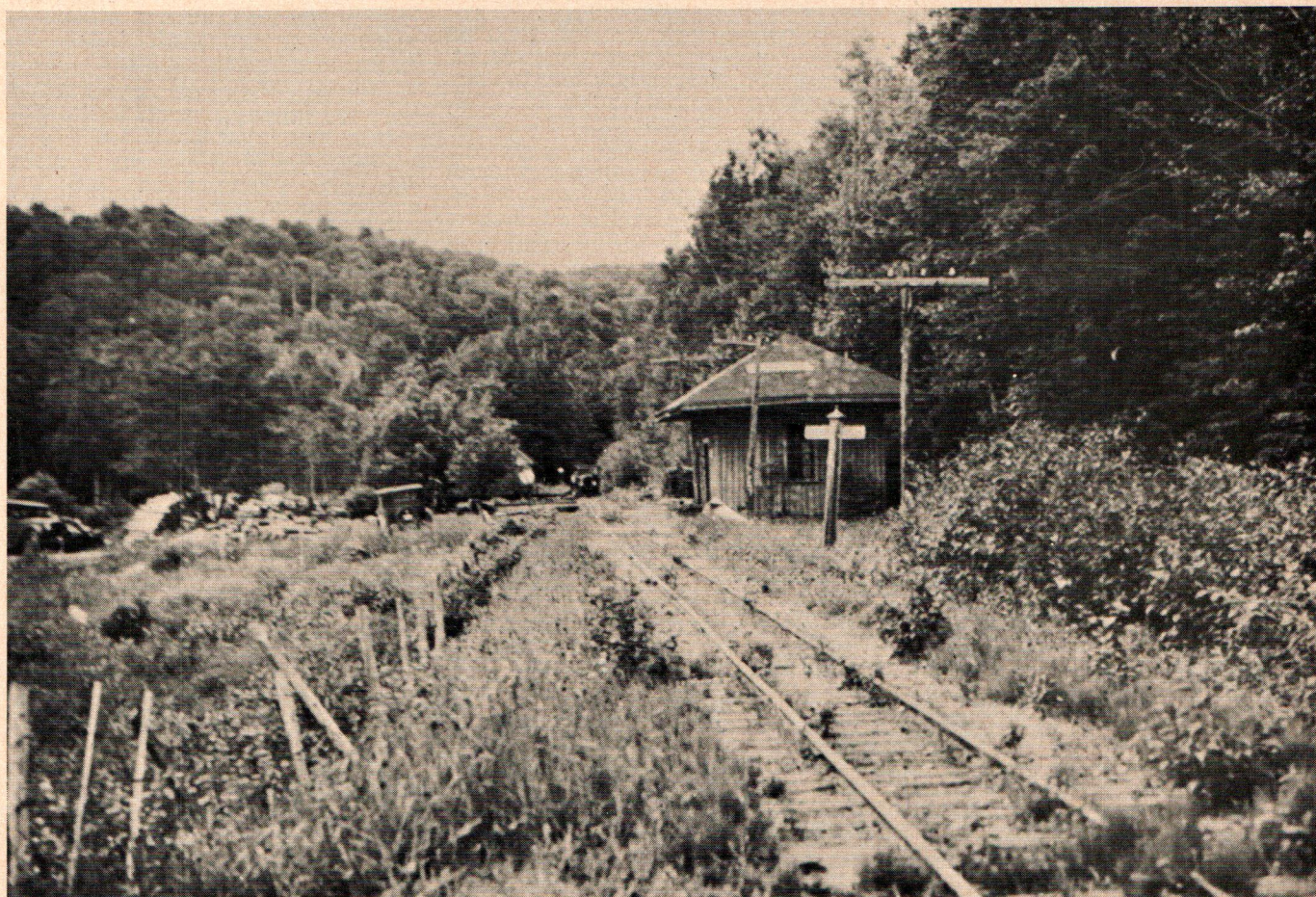
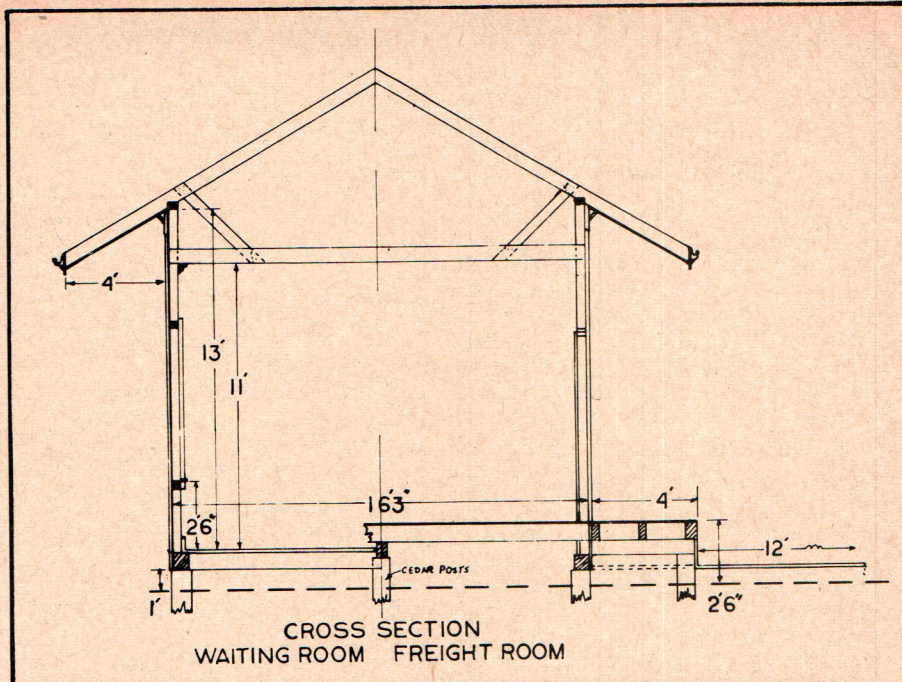
REEDS MILL, MAINE, was originally an agency station on the two-foot gauge Phillips & Rangeley Railroad, which opened in 1891 and ran north from the terminal of the Sandy River Railroad at Phillips to the lumber mills of Sanders and Redington, and the little vacation village of Rangeley. Later, when the P&R merged with the sprawling Sandy River & Rangeley Lakes system in 1908, Reeds became a stop on that line, 25 miles north and west of the standard gauge interchange with the Maine Central Railroad at Farmington. Reeds ceased to carry an agent on the payroll sometime in SR&RL days, and subsequent cutbacks saw first freight only, and then in 1931, abandonment of all service on the old P&R portion of the line. The two photos show the station after the abandonment of this service, when only the railcars used in scrapping the line squealed over the weedy rails.



Reeds Mill depot on Maine's largest two-foot gauge railroad-offers an ideal prototype for a small combination station on any gauge model pike.

and Bob Hayden

Reeds Mill station in the 1930's, looking north toward the Rangeley mountain area. The P&R portion of the SR&RL had already been abandoned and weeds grow in profusion along right of way. A rail bus can be seen in the distance.



The structure shown in the plans and photos was built in Phillips & Rangeley days, probably in the early 1890's, but possibly as late as 1906, as it does have more 'modern' lines than many of the other station structures on the SR&RL. The plans are redrawn from an old print from company files, and an interesting feature is the change which occurred when the structure was actually built. The photos show that the location of the

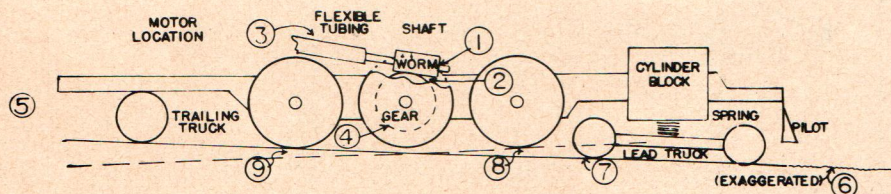
freight door and platform were changed, while the general design remained intact. In any case, either variation makes an excellent prototype for a small combination station. Notations on our original plan called for the structure to be built mainly of spruce beams and boards, so you might try building a model out of individual pieces of stripwood. The roof was also originally covered with cedar shingles, but the photos show

that tarpaper was sheathed over this when maintenance costs called for a less expensive substitute.

Today, little trace remains of the railroad at Reeds Mill. The station building is gone, probably destroyed by fire or dismantled by some enterprising soul for its lumber. The old grade has become a logging road, and you may drive in there today much like the old narrow gauge trains rattled in 70-odd years ago.

SLIP-UP by Bill Schopp

What to do when a locomotive won't run but the motor does. Here are a number of common complaints and their simple remedies.



The engine that "goes" but still doesn't get anywhere is not quite as difficult to trouble-shoot and correct as an engine that is jammed up or short-circuited—but it is still infuriating.

If the wheels do not go round, then look for the slip-up trouble in the motor and gears. If the motor spins, thus, at full throttle first be sure that the worm is tight on the shaft (1). Although they are forced on, worms occasionally do come loose. If the worm/gear meshing is open, you can look and see if the shaft is turning but the worm is not. If the worm is plastic, it should be held to the shaft by knurling. If it is metal, it may be held by knurling, or may be soldered. I suggest removing the motor, and the worm with its shaft to avoid possibility of damaging the gear by nearby work. You may re-knurl a shaft by nibbling at it with diagonal bites of cutting pliers. This will raise more knurls to grab the worm and hold it.

You may have to drive the worm over the new knurls, but use a minimum of force, exerted via a hollow punch. And never, never put any shaft pressure on the back bearing of the motor: this may flatten it, mash a ball bearing, or on some motors, move the armature along. Grasp motor shaft behind worm but ahead of front bearing with locking pliers and then exert your pressure so that the nearby shaft itself takes the pressure, not the other end.

If the worm and shaft are seen to turn as the motor turns, but the wheels do not turn, something is wrong with the mesh of the worm and gear (2). Some types of motor mounts will permit adjustment of mesh by sliding motor back and forth, or by tilting the motor more or less with an adjusting screw underneath. *If you cannot be certain, by observation, that the teeth of both worm and gear are intact, you may have to accomplish the same otherwise. With a gearbox, sometimes a loose bottom plate thereon, or worn axle holes in the sides, will permit a gear to drop out of mesh. However, most cases of slip-up between worm and gear are caused by worn teeth in either or both. The remedy is then replacement.*

If there is a flexible shaft anywhere, as between motor and gearbox (3), or between gear-boxes, slip-page of this flexible shaft on one of the shafts will give a slip-up. More often, particularly on imports, the rubber tubing will simply rot so that even the back pressure of a good mechanism may cause it to break. A lot of time is wasted trying to get exact replacements for such flexible shafts, but nearly all can be replaced with model airplane gas line tubing. The small size tubing (hole about 1/16") will fit snugly on the usual 3/32" or 3.0 mm. shafting used in HO engines. The medium size will fit over the brass bushings used on shafts of some imports, though I often remove the bushings and use the small size tubing. It can be cut with scissors.

One other flaw that will cause slip-up in the power train is (4) a loose gear on the axle, thankfully rare. Replacement of the whole wheel set is called for.

Instances where one engine of an articulated goes, while the other won't budge, or where one truck of a diesel goes and the next doesn't, are probably caused by a broken flexible shaft. If universal joints are used instead of a flexible tubing, then perhaps one is not properly inserted in its mate. If the one engine or truck obviously tries to go, but the other will not, more likely you have a jam-up in the other engine or truck.

Let us now assume that the power train from motor to axle(s) has no slippage in it, but the drivers on an engine still spin. A common cause (5) is too many cars, too heavy a train. You can be sure that all wheels on all cars behind the engine (including the tender or the dummy unit) are free to revolve and are lubricated. And you must be sure that all these wheels are on the track, very important. Then see if the engine will pull the train on level straight track, or on a descending grade where gravity will help. If all goes well then, look to the sharpness of curves, steepness of up-grades, number of switch points and frogs, and even variations in track gauge—these all reduce the length of a train you can haul. Try pulling the cars yourself with your hand. It's surprising, you'll think,

that even under the best conditions, this 1/87th full size engine can move them at all!

Really to verify slippage in an engine you should run it by itself, not with a train. If you suspect the tender or B unit, try substituting for them, or removing them, if feasible. If the loco checks out, then add one car at a time until you reach the maximum load; then remove a few cars for a margin of safety.

Few, if any, HO locos will pull as much as the prototype. Japanese imports usually pull less than domestic engines unless additional weight is added to the boiler so that it presses down on the drivers. One of the very low melting point alloys such as CerroBend can be poured into the boiler. Bits of lead mixed with cement can be stuffed in. A new and larger weight can be cast in an aluminum foil lined piece of split brass or copper tubing. The final super-weighted engine should eventually balance on its center driver or where the center of the driving wheelbase would be.

A caution: no engine should be weighted to the point where the wheels cannot slip when the train is too heavy. Wheel slip is a kind of electrical safety valve (in addition to your circuit breaker). If the load is so heavy that the motor cannot move the engine and cannot turn the wheels, the motor will heat up, and eventually burn out.

I recall that the popular remedy for tin-plate wheel-slip in the twenties and thirties was small pieces of adhesive tape put on the circumference of the wheels on one side. These would grab the track mightily and you could run your engine and train up steep hills with ease. This is accomplished today by the use of "rubber" tires on some wheels.

Unfortunately we cannot sand the rails for better starts as the prototype lines do. What we can do is to use sandpaper and rub it ACROSS the heads of the rails, creating tiny scratches that will assist an engine to get a grip when climbing a grade. (6)

Dragging wheels have already been hinted at a few paragraphs back. These may be in the train or on the tender (or B unit). Lack of lubrication may let a wheel freeze or turn reluctantly. Side-frames of trucks may pinch the axles so hard they cannot turn. I have seen nylon lead truck wheels that could not revolve because of a tiny but tough "hair" of nylon sticking out the back. (7)

If you suspect your engine's leading and trailing wheels or other non-driving wheels (on a diesel), try removing those trucks as a test. Too heavy springing of the lead truck may lift the first set of drivers off the rails very slightly (8) and reduce traction of all but the last pair of drivers. But too weak springing will not only invite derailments, but on

(Continued on page 50)

NEARLY 1100 FT units were turned out by Electro-Motive between 1939 and 1946. As the economy eased from guns back to butter, EMD unveiled a new model F-2, a 1350 hp. unit offered in both A and B models, and built about 100 during 1946. Appearances, the F-2 was identical with the improved 1500 hp. F-3 which followed that same year. The familiar four portholes of the FT had given way to three more widely spaced portholes in the F-3.

Between 1946 and 1949, EMD turned out some 1800 F-3 units in both A and B styles. Early F-3 units featured a chicken wire type grillwork above the porthole windows which gave way in later units to a stainless steel type grill. Another change saw the addition of air intake louvers between the two outermost portholes, resulting in the center porthole being eliminated in later models. Roof fan detail, similar to the FT on early models, also changed as shown in the plans on these pages.

Minor detail variations were also plentiful. Early small number boards set in the nose became larger on most later units. Mars lights were an optional feature and many roads eventually added a variety of handrails and grab irons around the nose and even above the cab windshields. Units on the Pennsy featured distinctive roof antennas. A few of the units on the New York, Ontario & Western even sported steps, indicative as to the type of varied service these units performed on the now abandoned New York carrier.

The late F-3 looked much like the 1500 hp. F-7 which replaced it. The F-7 in turn, of which some 3700 were built, was also offered in a slightly longer FP-7 model housing water tanks required for passenger train heating.

The F-7 gave way to a more powerful 1750 hp. F-9 and FP-9 about 1954, identifiable by a finer mesh grillwork than found on the F-7, and having an additional air vent forward of the front porthole. Most of the changes in the F-9 were found under the hood.

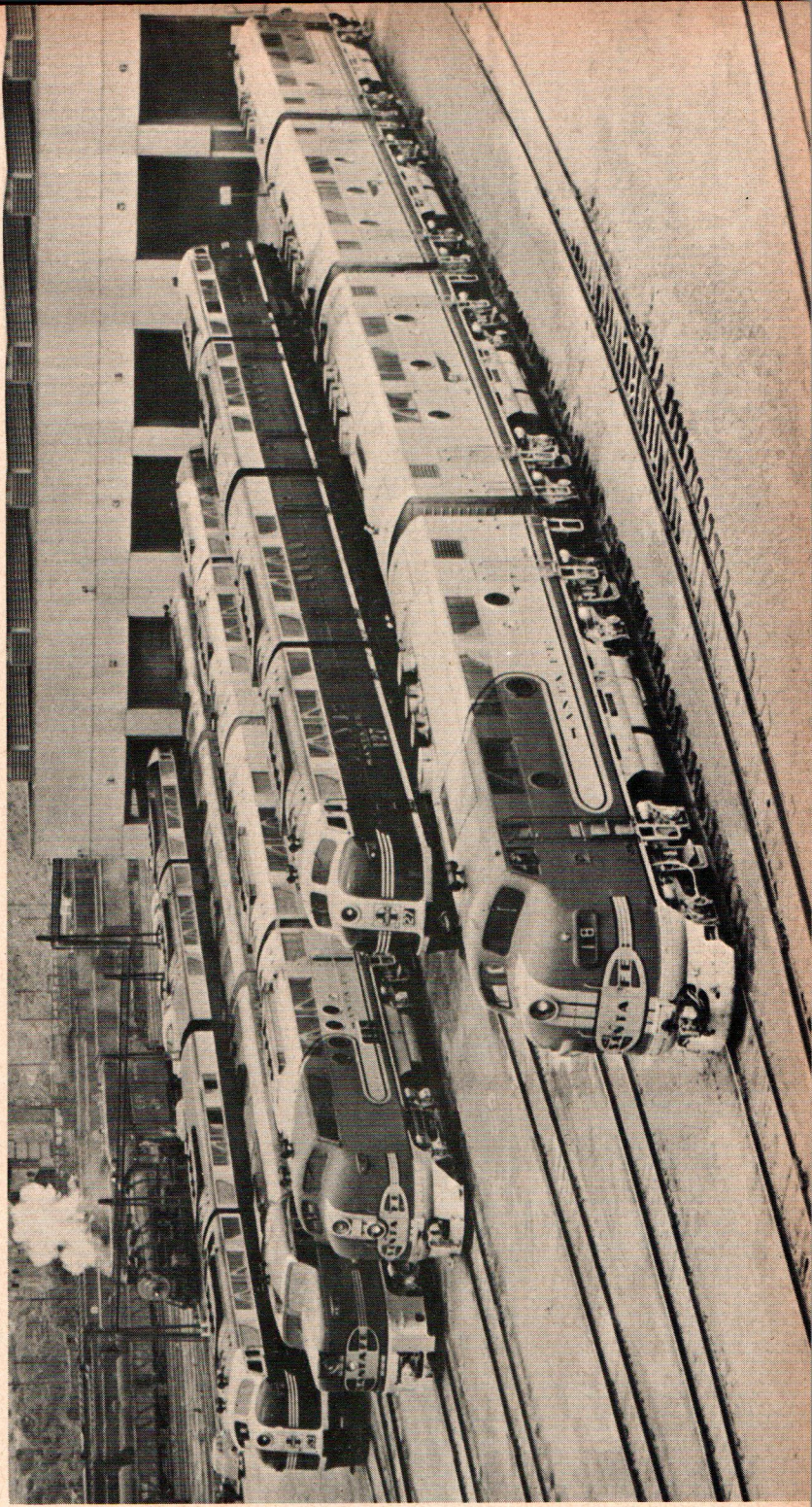


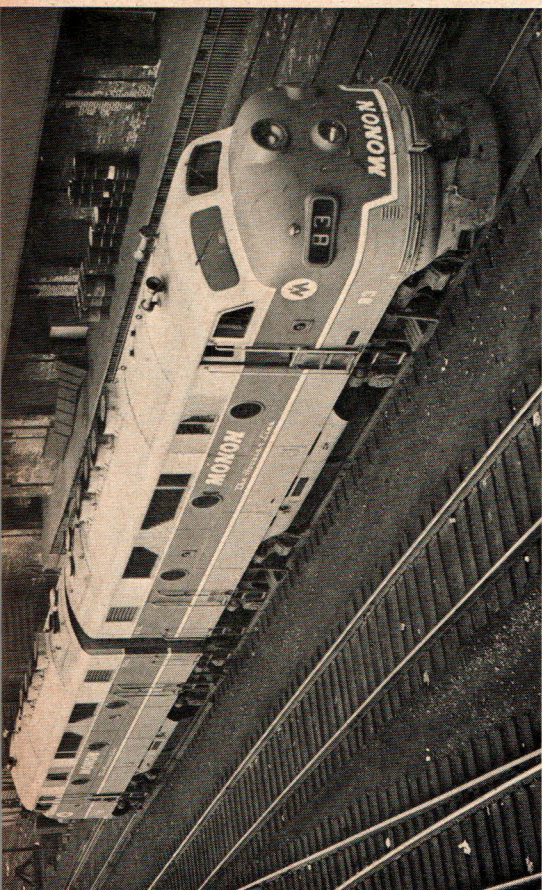
Erie RR F-3 ABA units on head end of old Erie Limited crossing Starucca Viaduct. Black and yellow F-3 units were later replaced on passenger runs with EMD E and long Alco passenger diesels.

Electro-Motive's F Units

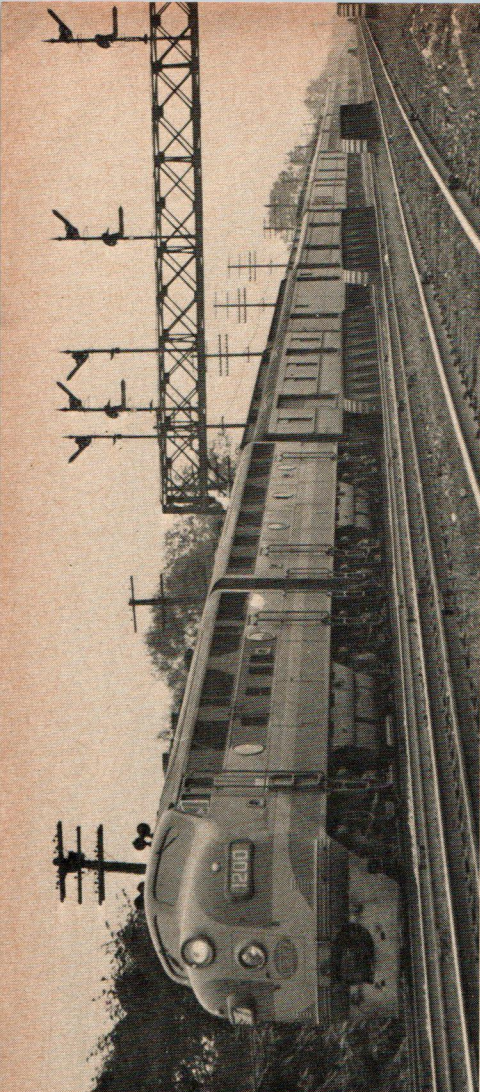
Following the end of hostilities in 1946, the success of the war-proven FT design led EMD to develop the F-2, followed closely by the more powerful F-3. The era of the steam locomotive was now drawing to a rapid close.

Santa Fe units at Barstow, Calif., include silver F-3 No. 18, FT No. 127 in blue freight garb, FT No. 158 in silver passenger scheme, No. 53 6600 hp. long Alco passenger 3-unit diesel, and 5400 hp. FT No. 153 in 4-units. Santa Fe photo dated about 1948.

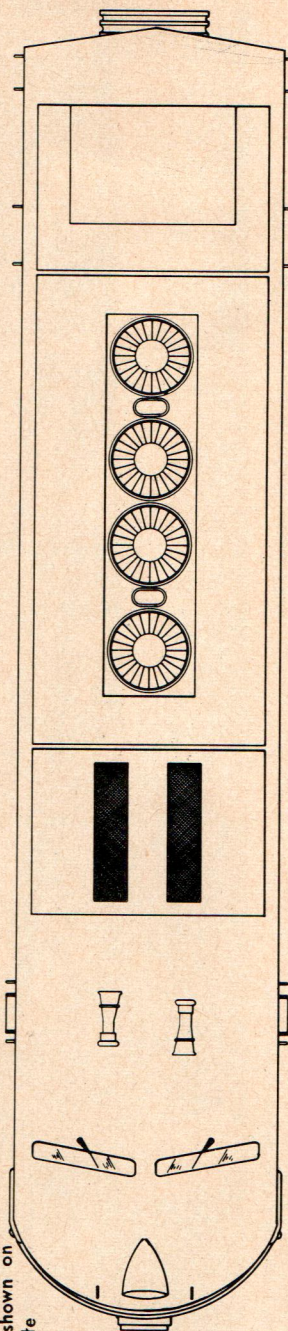




Grey and red Monon units at Chicago in Sept. 1948 were attractive, possibly more so than later black and gold color scheme shown on RMC cover in full color. 3 port holes and roof detail indicate No. 83 as earlier production type F-3. Note Mars Light.



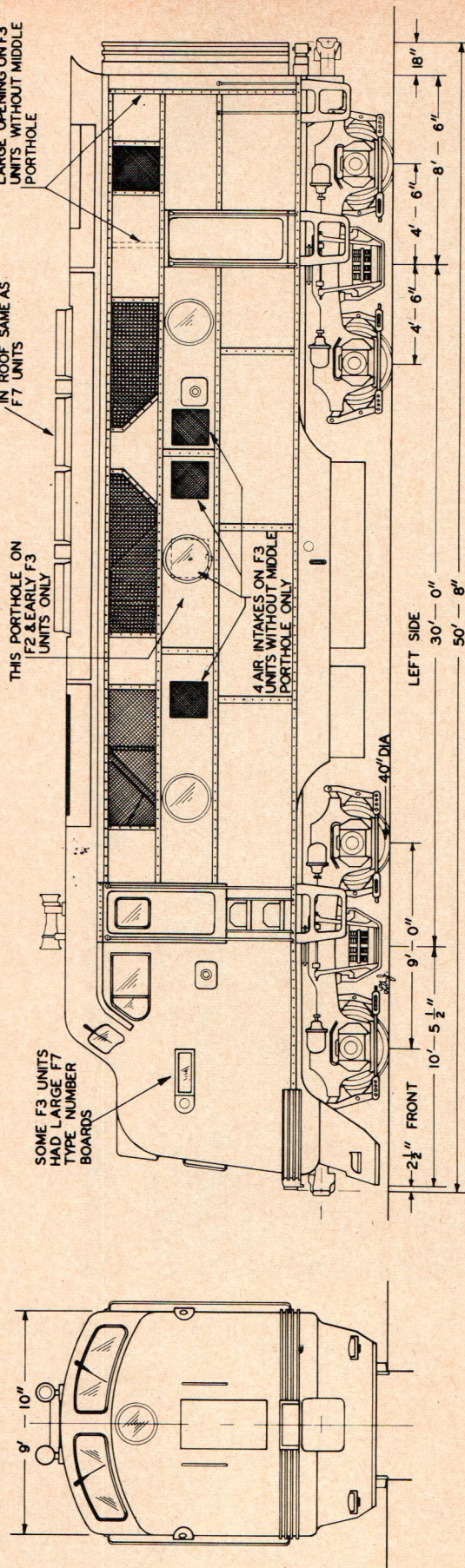
Blue and orange Chicago & Eastern Illinois F-3 A&B assigned to crack passenger train shown roaring through Englewood, Ill., Sept. 1948. Early color scheme has since given way to newer style.

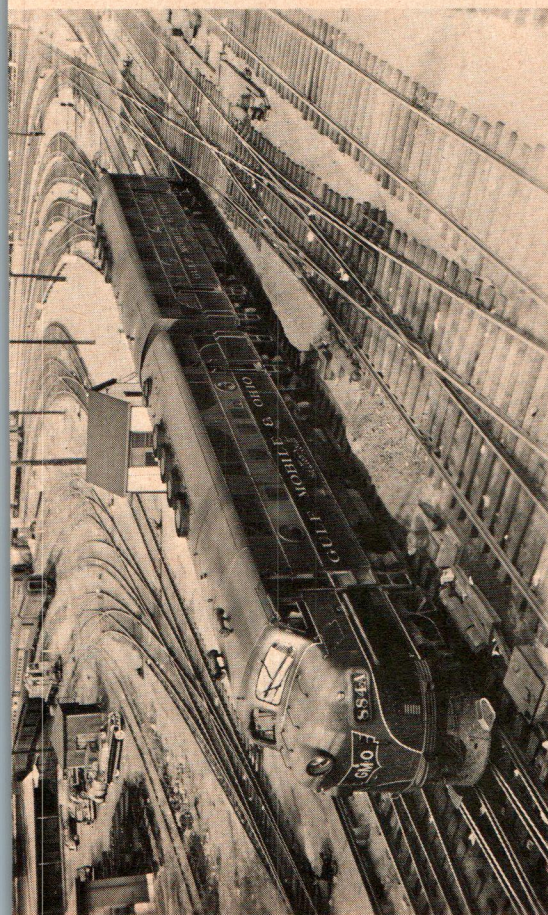


drawn by **Larry Jackman**

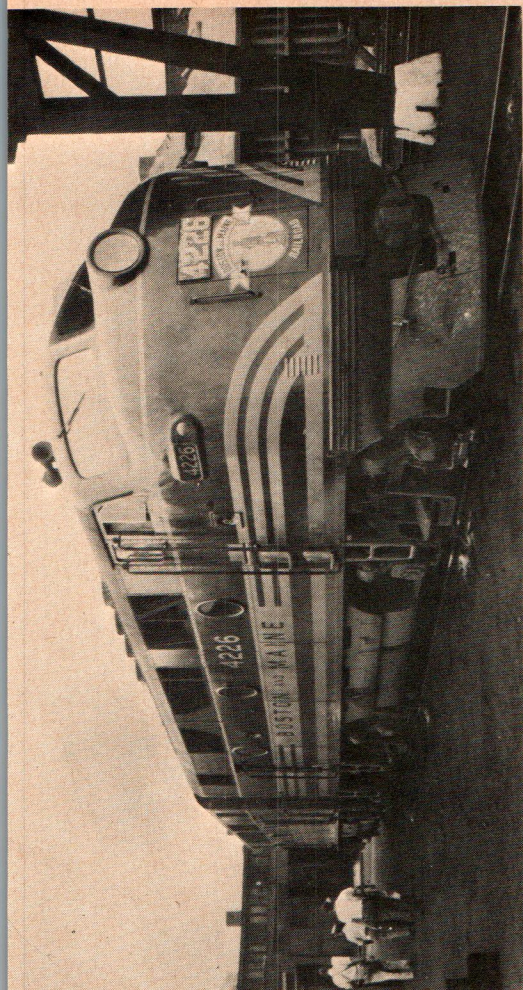
EMD F-3 1500 HP. A — 1946 - 1949

NOTE: F-3 drawing also covers 1350 hp. F-2 model produced in 1946 in limited numbers.

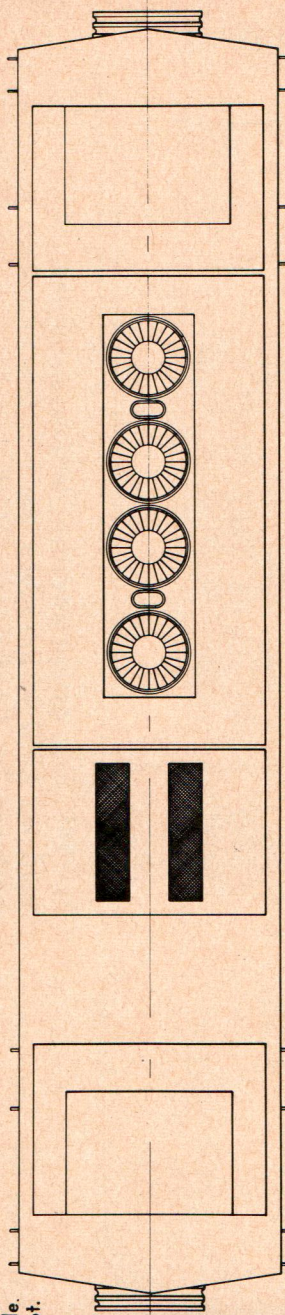




127mm Ektar lens gave this Gulf Mobile & Ohio maroon F-3 an elongated look. Air vents on 884A have replaced porthole. Note unusual handrails along nose and steps on the pilot.



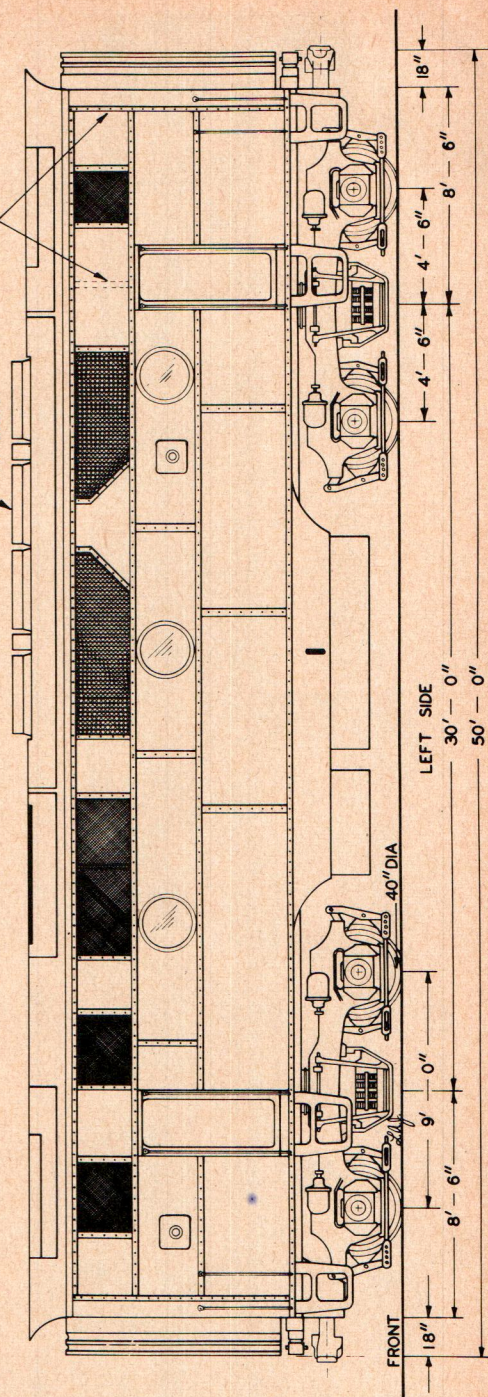
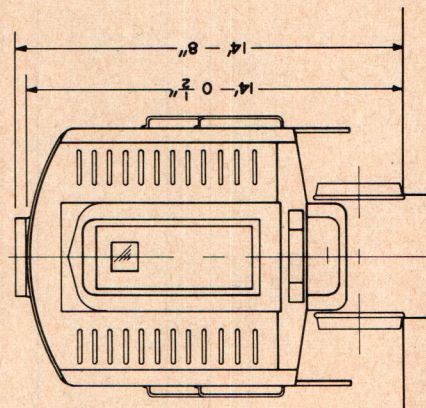
Maroon Boston & Maine F-3 with attractive yellow striping was familiar New England sight until later blue color scheme. Loco is at Walpole, N.H., Sept. 1947, on what is now Steamtown property.

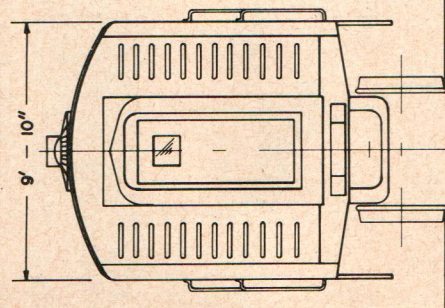
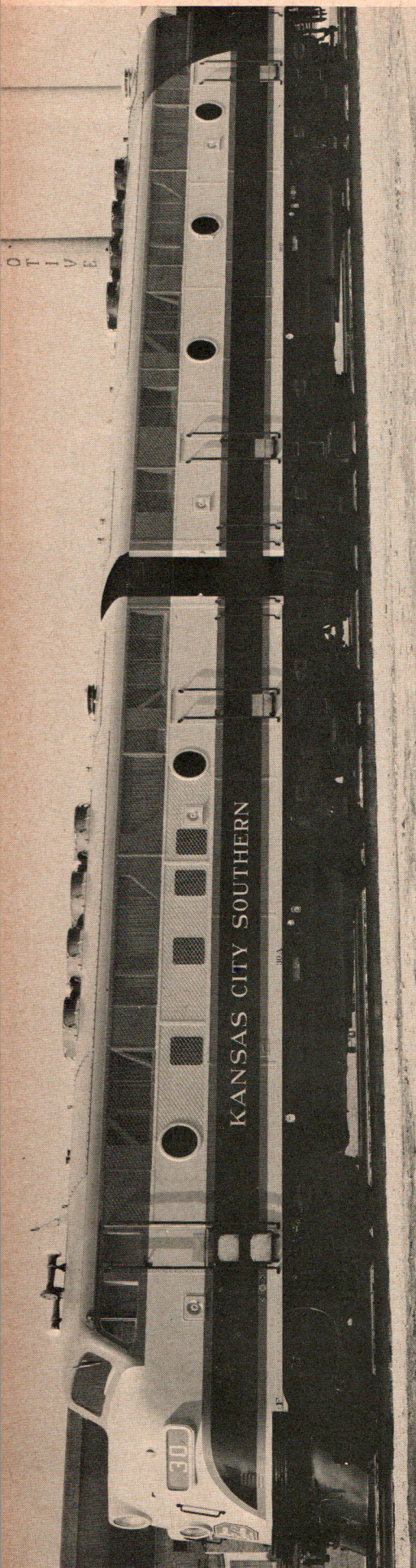


EMD F-3 B

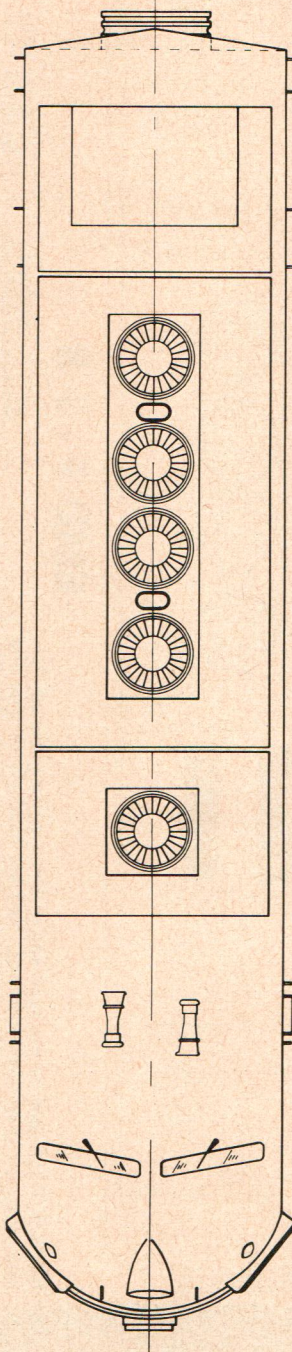
NYO&W F-3 A unit on the head end of No. 1 passing through Teanock, N.J., on West Shore trackage. Unit has handrails on nose and switching steps on the pilot. NYO&W units went to NYC, WP, SN.

LATE F3 UNITS HAD FANS MOUNTED FLUSH /IN ROOF SAME AS F7 UNITS



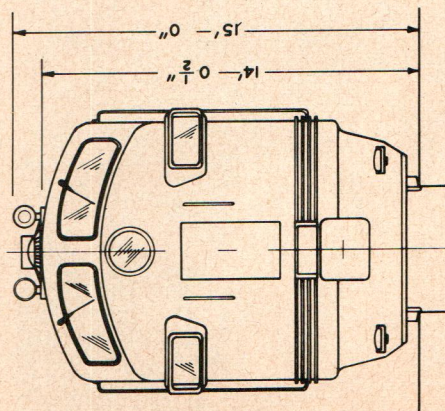


Kansas City Southern early F-3 built Nov. 1947 with chicken wire grill and cover over air intake cut out in side of A unit.

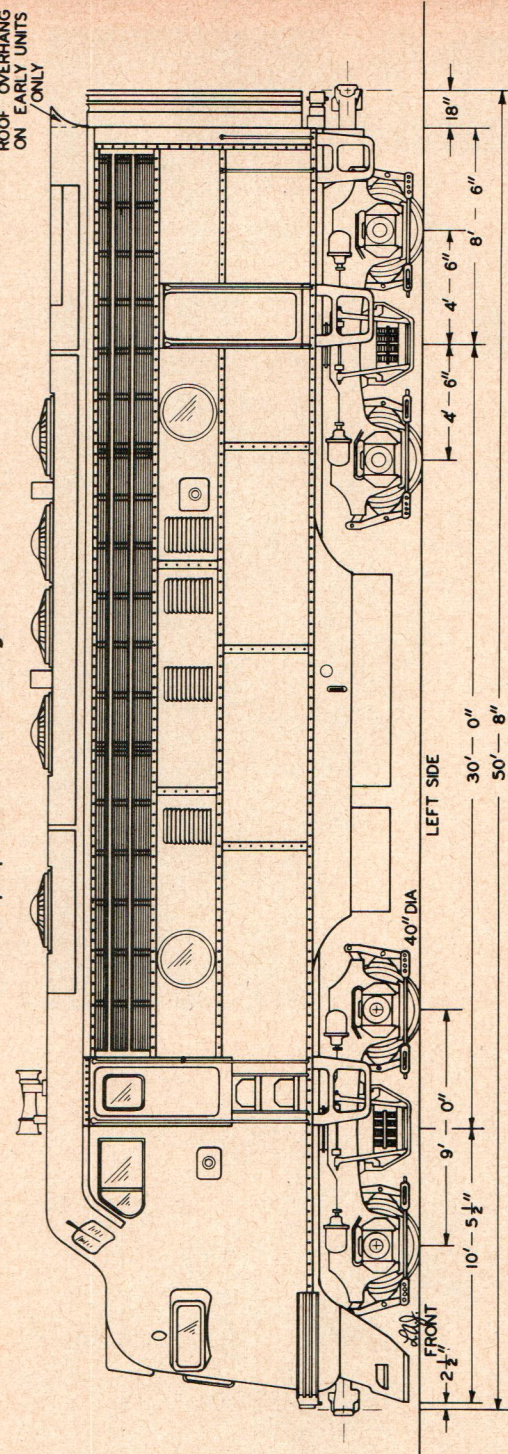


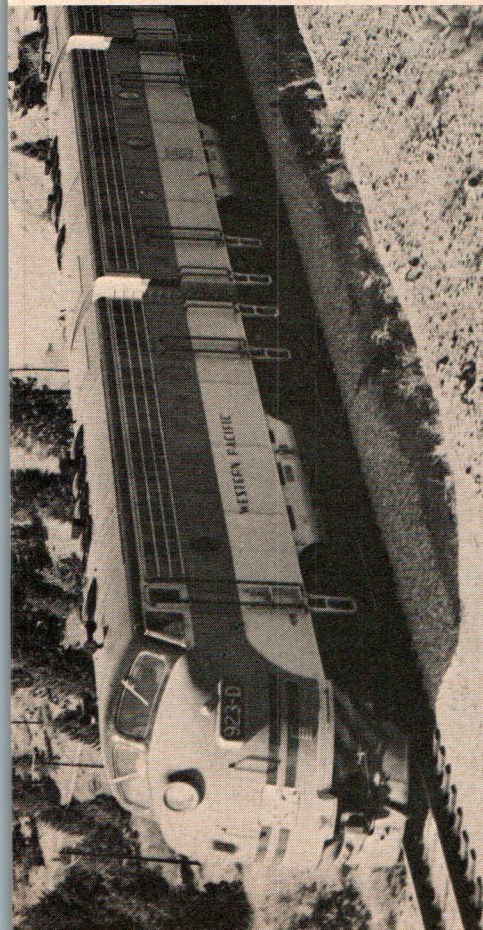
By 1949, new design advances largely under the hood led EMD to introduce the F-7, one of the most popular diesel designs of all time.

NOTE: F-7 drawing covers late model F-3.

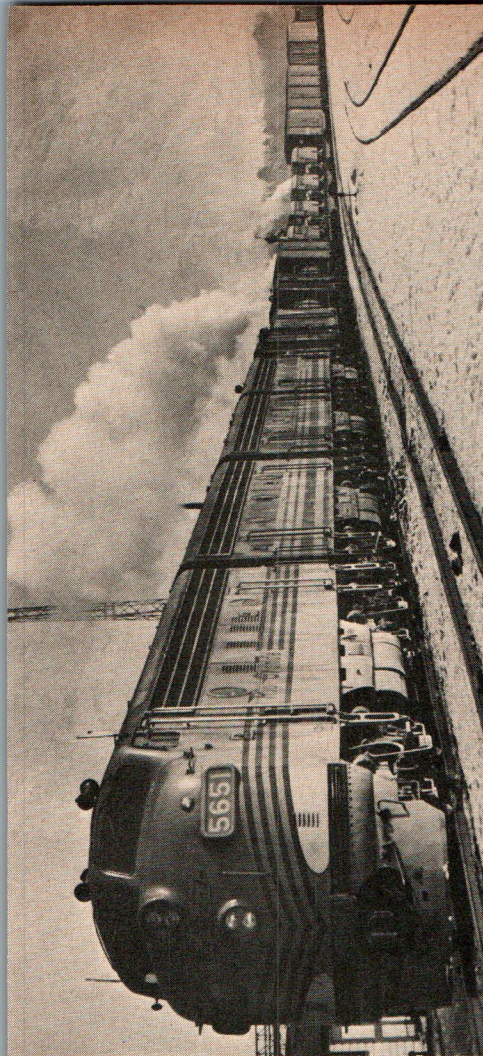


ROOF OVERHANG
ON EARLY UNITS
ONLY

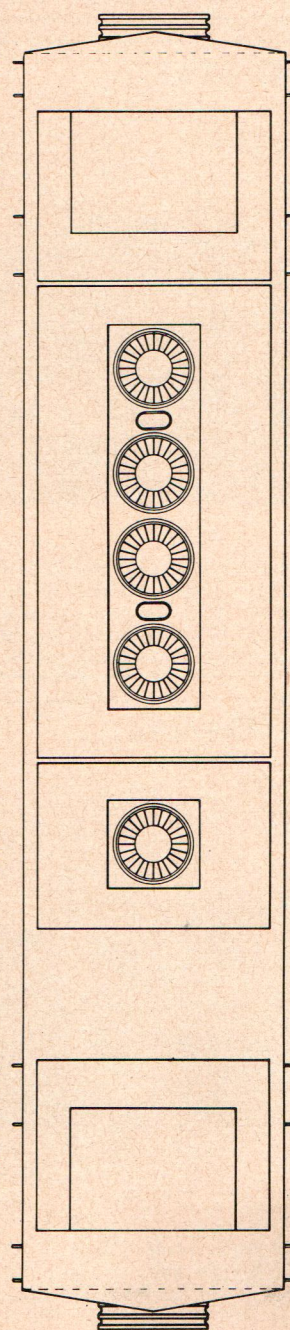




Roof contouring was cleaned up in late model F-7 units such as on this Western Pacific freight. Note how horns on lead unit face in opposite directions. Most roads intermix F-3, F-7 type units.

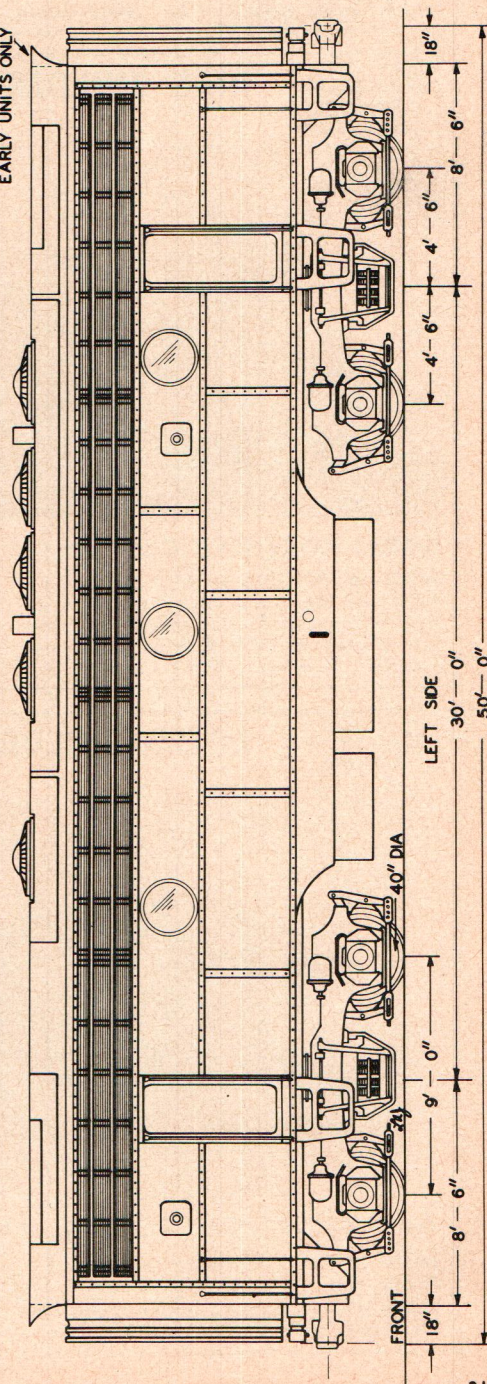


Don Sims photo at Provo, Utah, caught this 4-unit F-7 Rio Grande freight in old and new color schemes. Yellow and orange D&RGW colors are among brightest used by any North American railroad.

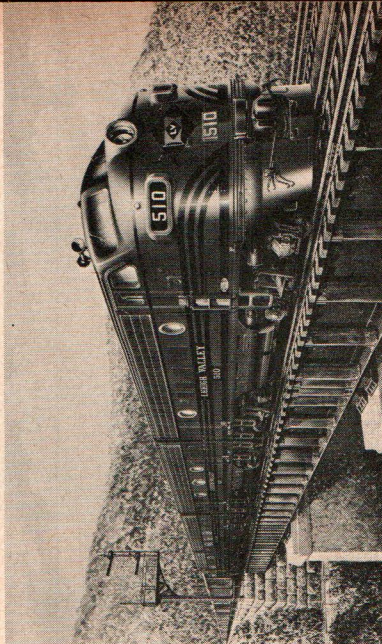


EMD F-7 1500 HP. A&B — 1949 - 1954 drawn by Larry Jackman

ROOF OVERHANG BOTH ENDS ON EARLY UNITS ONLY



NC&StL F-3 middle version with chicken wire grill, louvered vents, built 3-48.



Maroon Lehigh Valley F-7 units in artist's rendition. Subdued colors emblem gave LV units very attractive appearance. 3700 F-7 units saw service around the world.

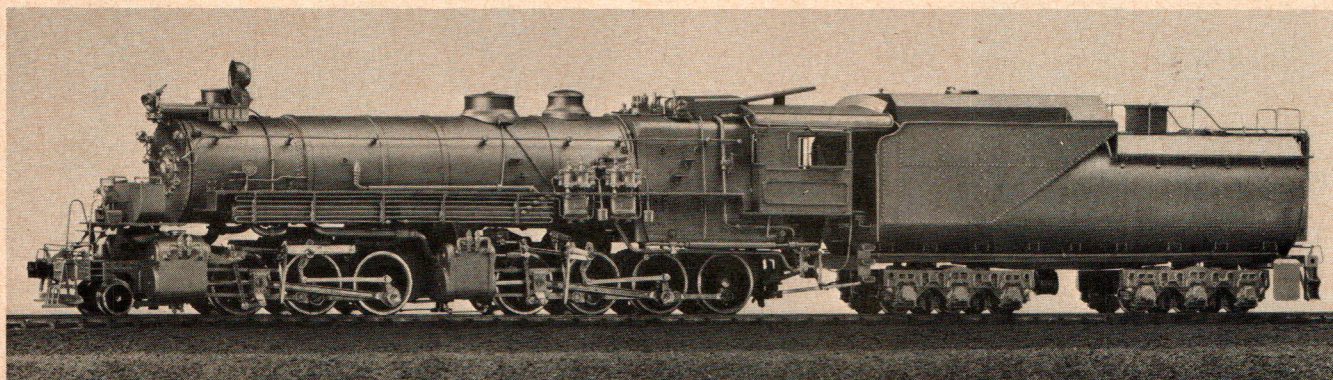

ELECTRO - MOTIVE GP - 35

Model of Electro-Motive GP-35 general purpose low profile road diesel introduced in 1963, developing 2500 hp. Model is all built-up brass construction. Die cast zamac truck frames. Weight 19 oz. Overall length

7 $\frac{5}{8}$ ". Minimum radius 18". Universal coupler pockets. Road names: ATSF, B&O, CB&Q, D&RGW, GN, NYC, SP, UP, WP, PRR. Mfd. in Japan by Tenshodo for Pacific Fast Mail, P.O. Box 57, Edmonds, Wash.

HO
TENSHODO - PFM

98020. Model introduced 1966, painted ready to run, \$34.95. Check current catalog regarding parts availability.

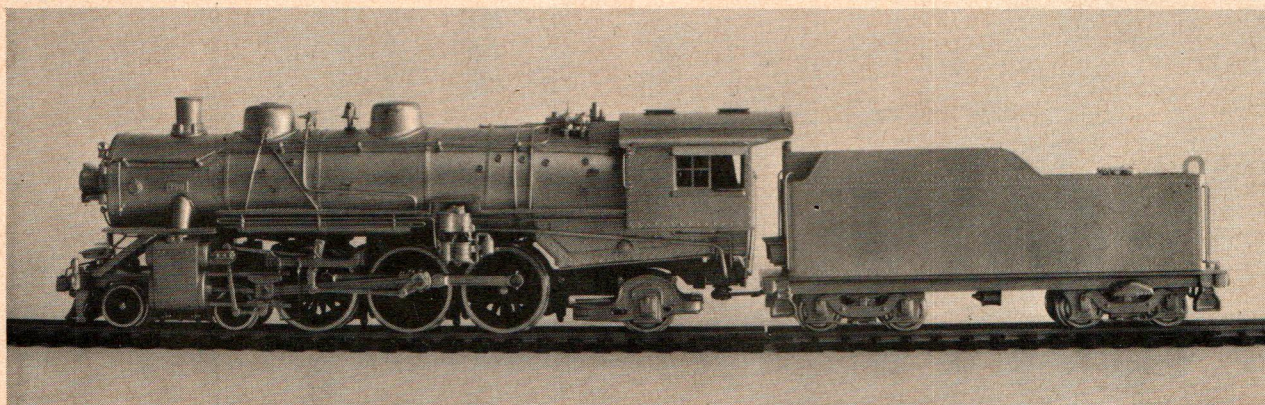

GREAT NORTHERN CLASS M - 2

Model of 1908-1910 period odd wheel articulated. See RMC May-June 1964 for prototype photos. Limited production model first offered in 1964. Built up brass construction. Tenshodo MH-2 motor. 55"

drivers, all flanged and sprung; No.'s 2 and 5 geared. Length 13 $\frac{5}{8}$ ". Weight 35 oz. Minimum radius 22". Universal coupler pockets. Offered RTR unpainted (honed finish). Mfd. in Japan by Tenshodo for Pa-

HO
TENSHODO - PFM

cific Fast Mail, P.O. Box 57, Edmonds, Wash. 98020. List price, Feb. 1966, \$125.00. Consult current catalog regarding replacement parts availability.


GREAT NORTHERN CLASS Q - 6 PACIFIC

Model of Great Northern road class Q-6 Pacific type. All brass built up model. Enclosed gearbox, Pittman DC-70 motor. Pre-blackened frame. Cast lost wax detail parts.

Medium sized coal tender. Satin finish. Length 11 $\frac{1}{2}$ ". Weight 22 $\frac{1}{2}$ oz. Takes 18" radius. Mfd. in Japan for Northwest Short Line, P.O. Box 423, Seattle, Wash. 98111.

HO NORTH WEST SHORT LINE

List price, ready to run, satin finish, Feb. 1966, \$54.50.


ELECTRO - MOTIVE SD - 45
HO
ATHEARN, INC.

Model of Electro-Motive SD-45 freight diesel, developing 3600 hp., introduced 1965. Model has one piece injection molded body with clear plastic window insert. Stamped and formed metal handrails. One piece die cast frame with center mounted double

universal shaft GE Lodex magnet motor. 12-wheel worm and gear drive. Illuminated headlight. Wireless pickup. NMRA type couplers snap mounted to frame. Metal RP-25 wheels. 6-wheel trucks. Takes 18" radius curves. Length 8 $\frac{7}{8}$ ". Weight 15 oz.

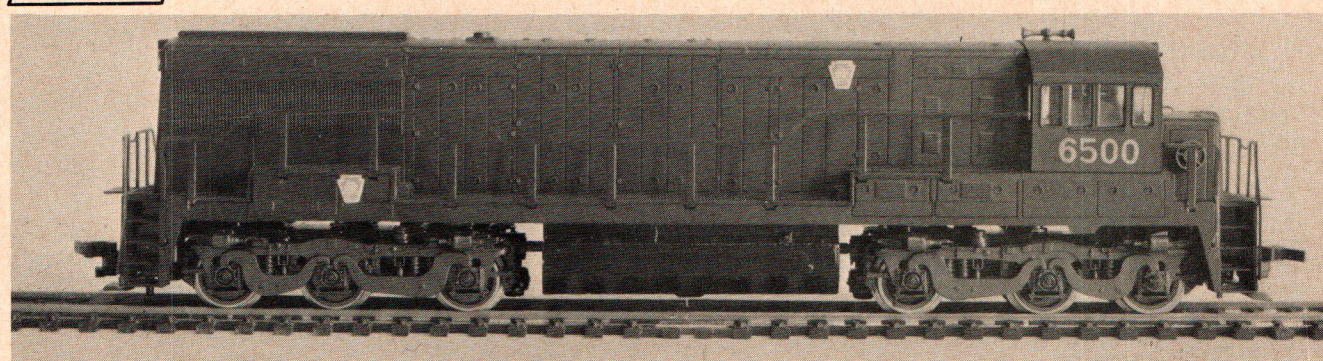
New 1966. Mfd. in USA by Athearn Inc., 11929 S. Western Ave., Los Angeles 47, Calif. Road names: 4160 Undecorated, 4161 Seaboard, 4162 SP, 4163 UP, 4164 Burlington, 4165 Santa Fe, 4165 Pennsylvania. List price \$14.95.


ELECTRO - MOTIVE SDP - 40
HO
ATHEARN INC.

Model of Electro-Motive SDP-40 general purpose locomotive, introduced 1965. Model has one piece injection molded body with clear plastic window insert. Stamped and formed handrails. One piece die cast frame with center mounted double universal shaft,

GE Lodex magnet motor. 12-wheel worm and gear drive. Illuminated. Wireless pickup. NMRA type couplers snap mounted to frame. Metal RP-25 wheels. 6-wheel trucks. Take 18" radius curve. Length 8 $\frac{7}{8}$ ". Weight 15-oz. New 1966. Mfd. in USA by Athearn

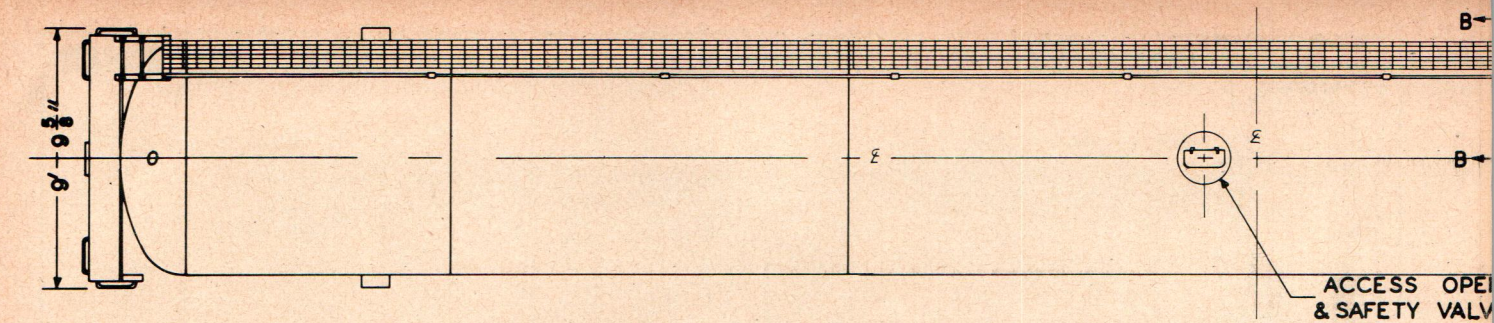
Inc., 11929 S. Western Ave., Los Angeles 47, Calif. Road names: Undecorated 4100, 4101 B&O, 4102 C&NW, 4103 NH, 4104 NYC, 4105 ATSF, 4106 SP. Frame identical with Athearn 4160 EMD SD-45. List price \$14.95. Dummy unpowered model \$5.98.


GENERAL ELECTRIC U - 25C
HO
RIVAROSSO - AHM

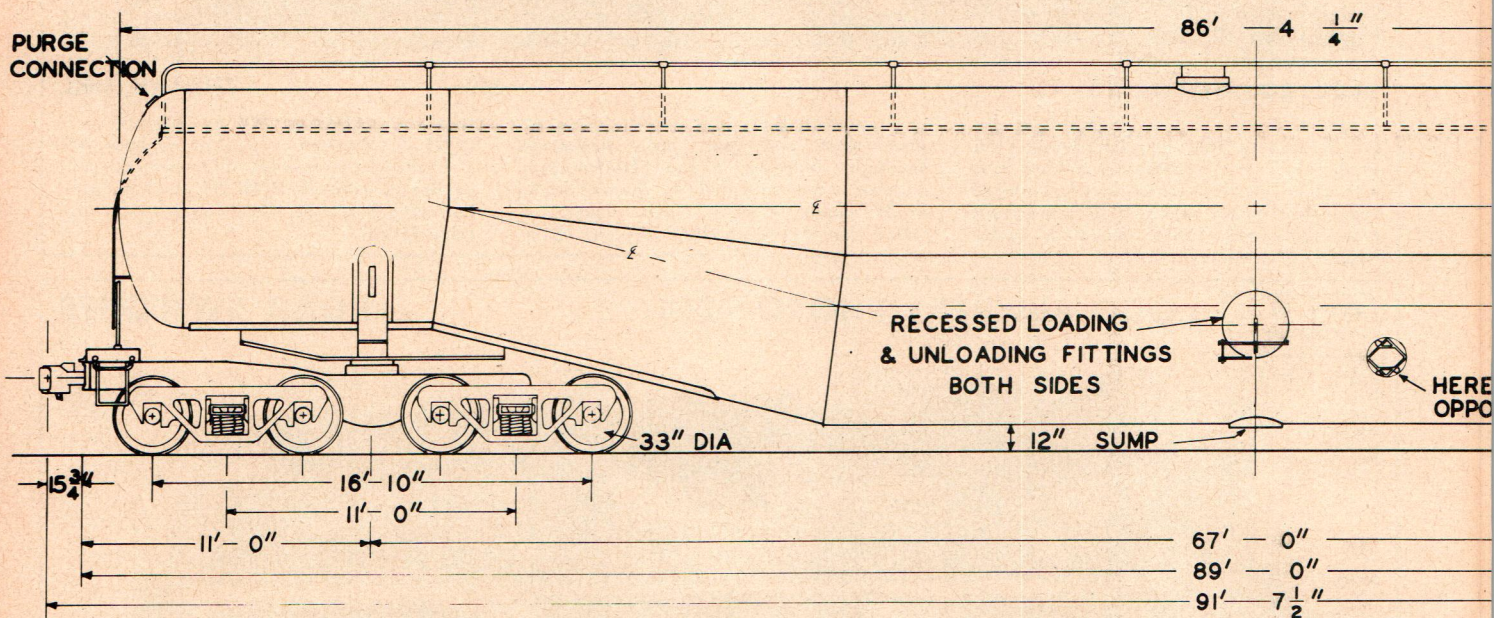
Model of General Electric U-25C 2500 hp. road freight switcher, introduced 1964. Model has one piece molded plastic body with plastic window and number board inserts. Stamped black metal handrails. Rivarossi motor end mounted in cab delivers

power to 4 wheels in each truck through universal shaft, worm and gear. 6 wheel trucks with metal wheels. NMRA type couplers. Illuminated. 5 screws hold cab to chassis. Metal weight. Weight 13 oz. Length 8 $\frac{3}{4}$ ". Takes 18" radius. Mfd. in Italy by

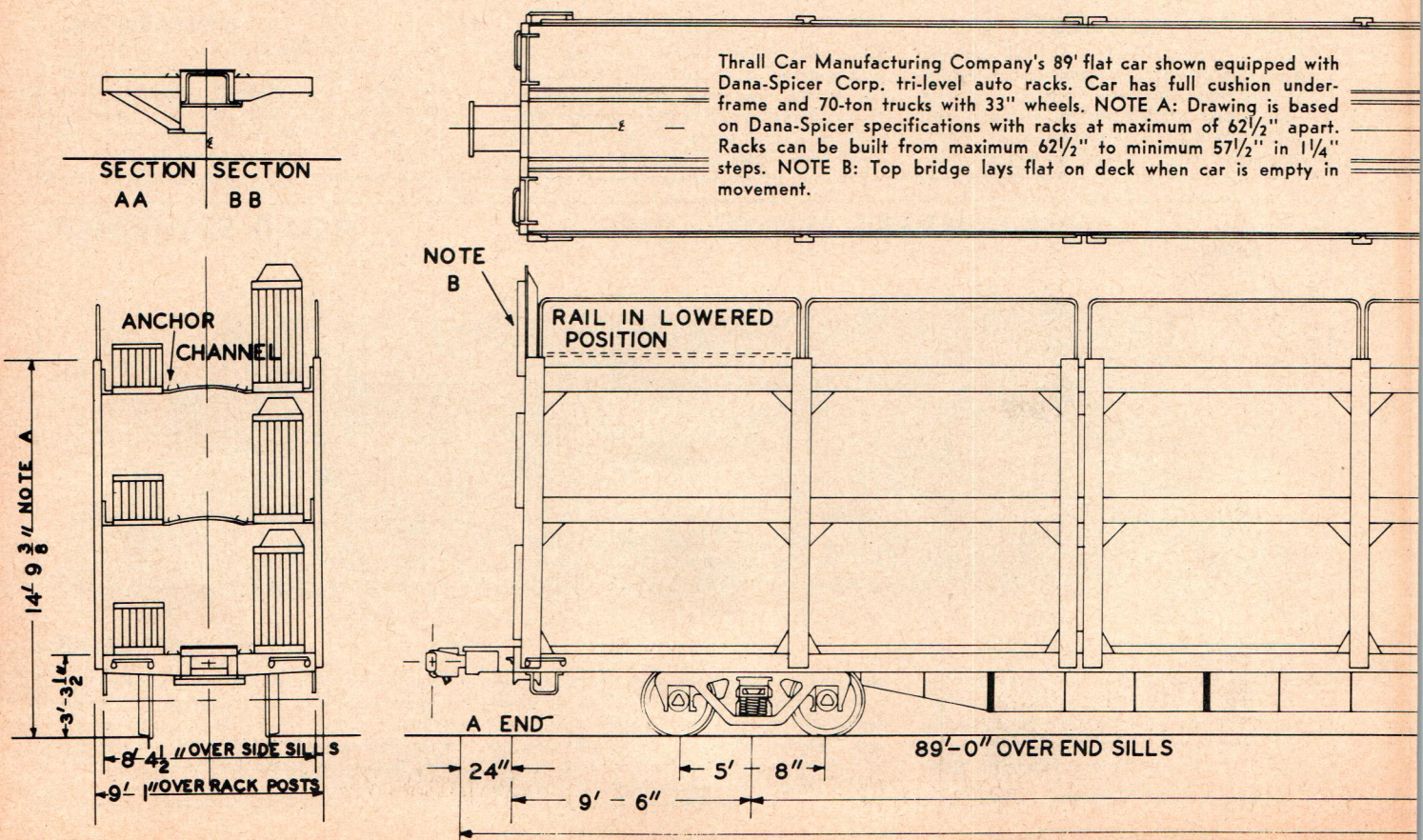
Rivarossi for Associated Hobby Manufacturers, Inc., 3214 N. Boudinot St., Philadelphia 34, Pa. New 1965. Road names: 5054 Pennsylvania, 5055 Northern Pacific, 5056 Burlington. List price \$16.95.

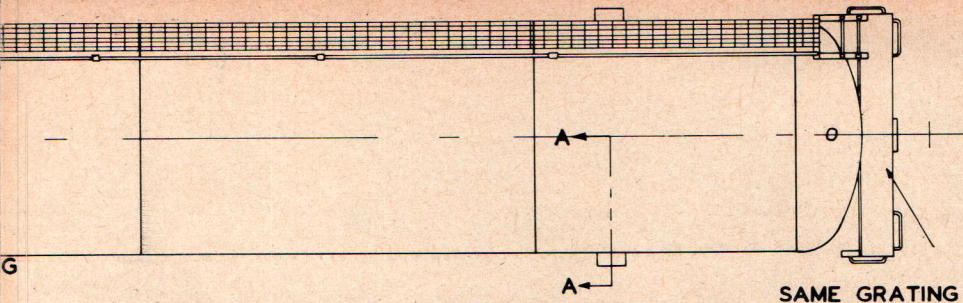


91' 50,000-Gallon-Type HD Tank Car — Union Tank Car Co.



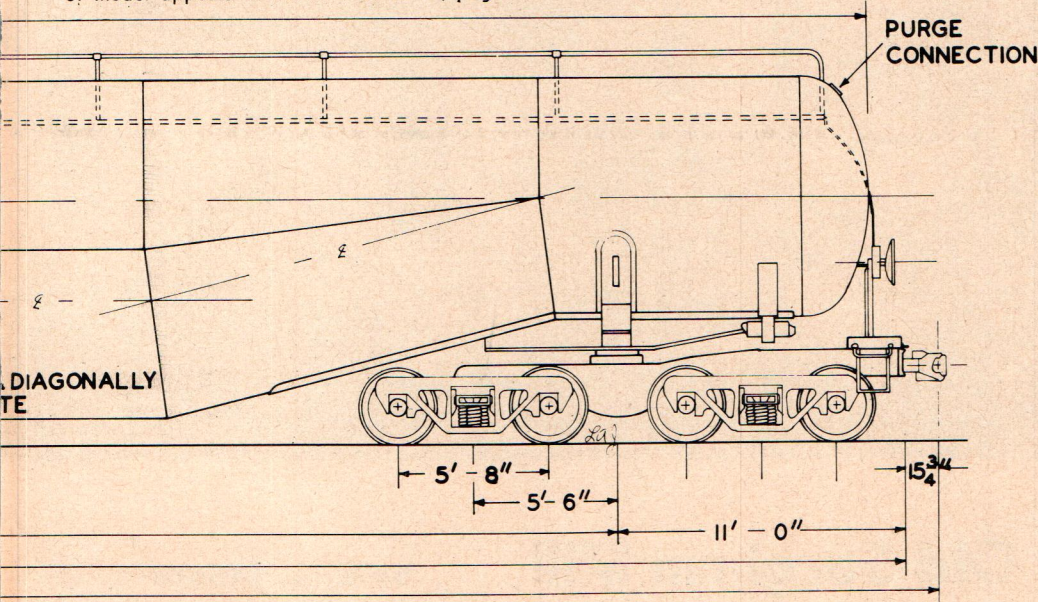
89' Tri-Level Auto Rack Car — Thrall Car Mfg. Co.



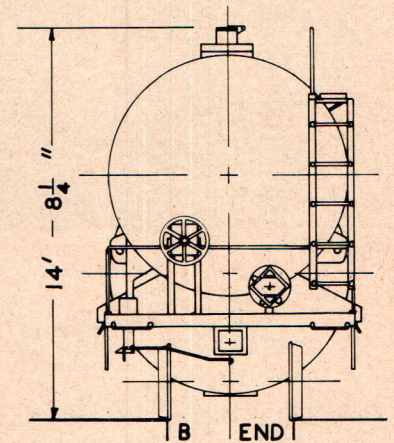
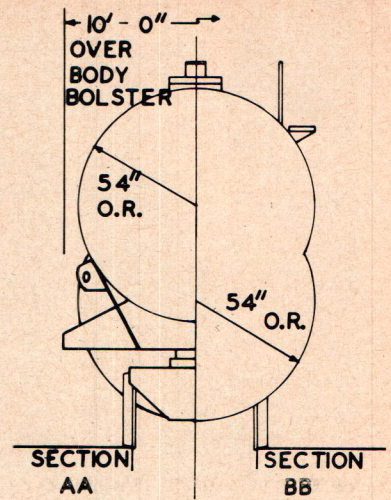


Union Tank Car Company, Chicago, 50,000 gallon Type HD tank car, ICC type 114A340-W, equipped with 70-ton trucks having 33" wheels. Car, light, weighs 175,160 lbs., spread over 16 wheels. Photo of model appears in March 1966 RMC, page 28.

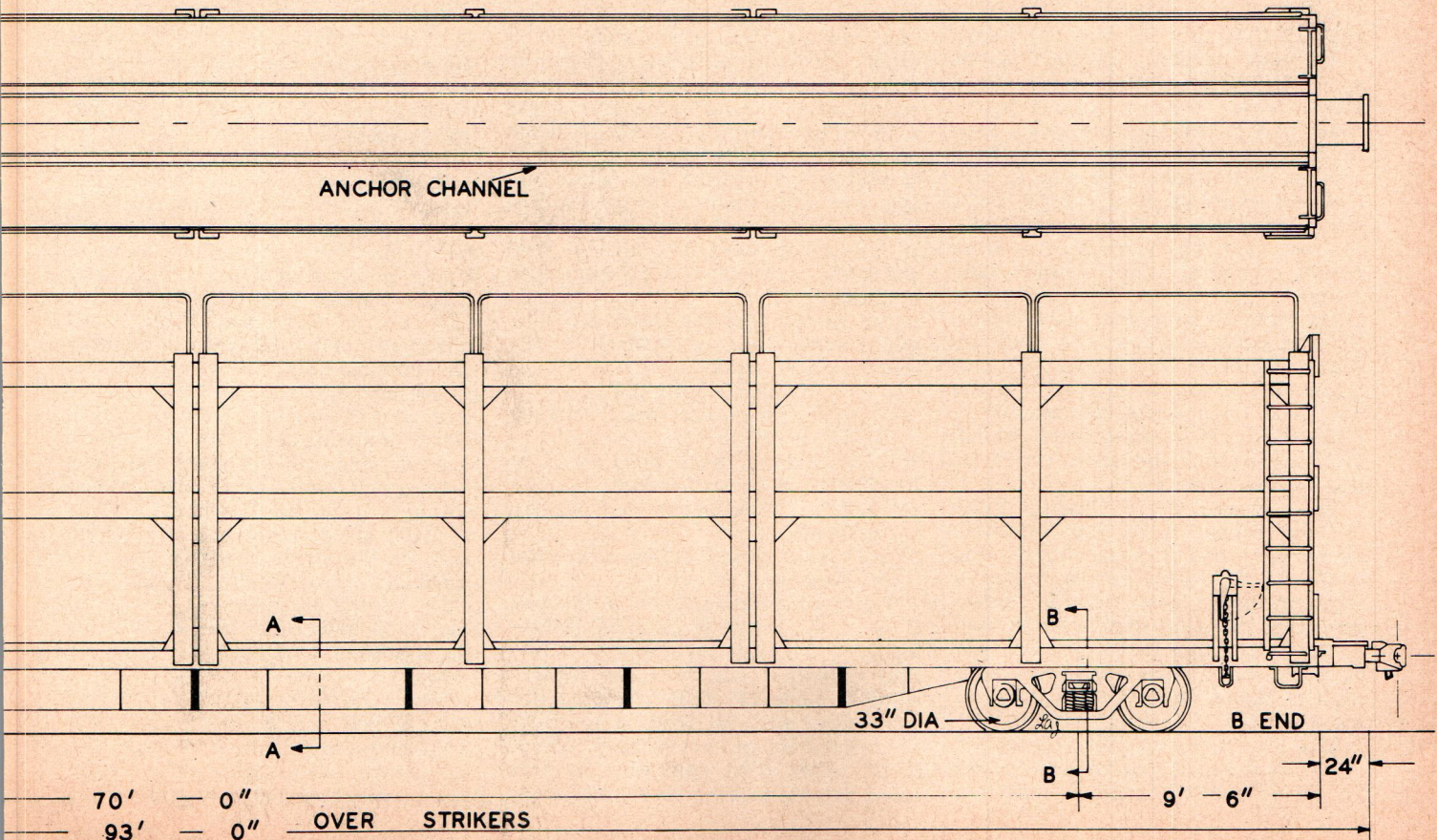
SAME GRATING AS WALK WAY

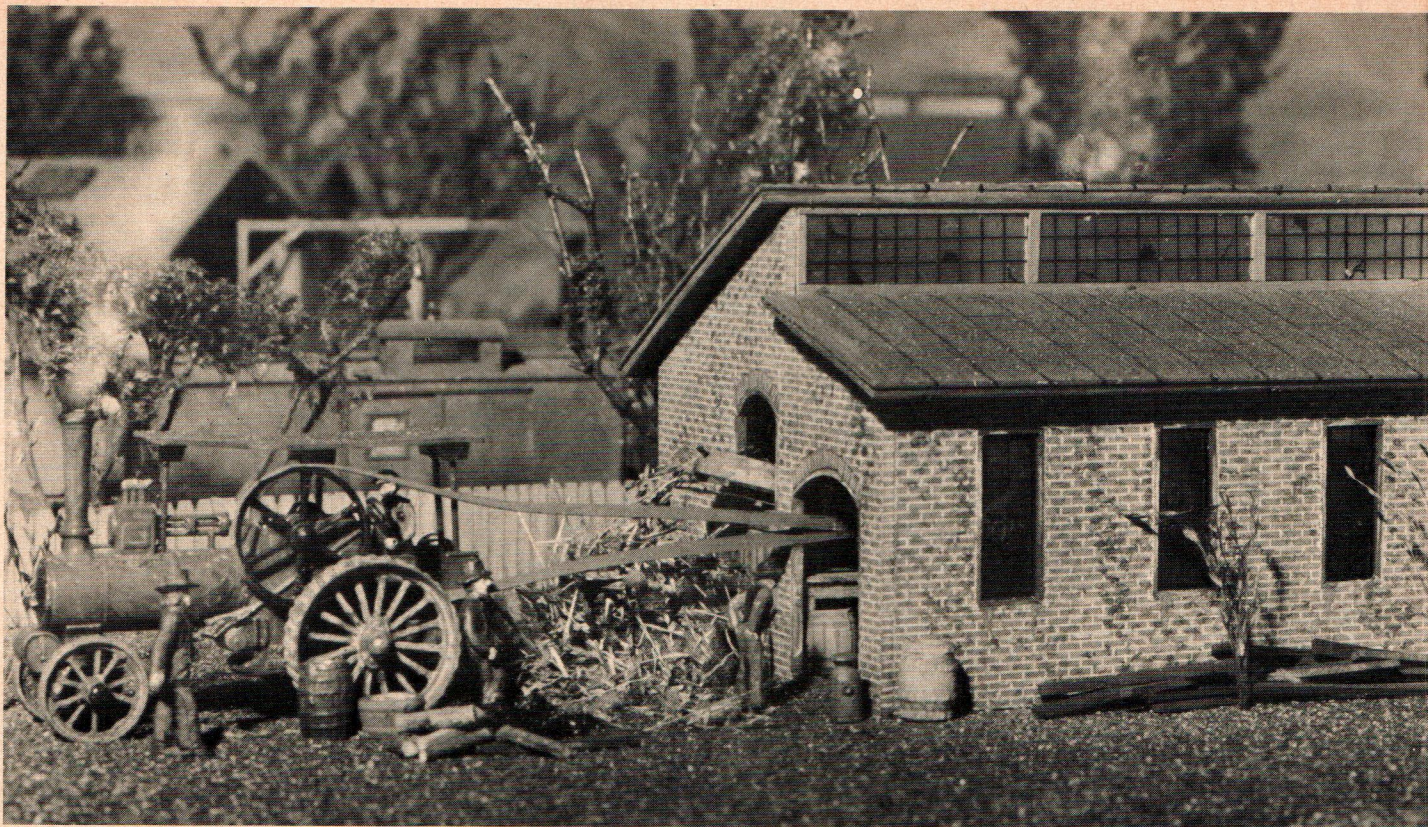


DIAGONALLY
TE



Drawn by Larry Jackman





Moe Lass' Old Sorghum Mill

by E. L. Moore

Set this authentic old sorghum mill off in a corner or up on a hill. It builds easily from Northeastern sheet wood and a bit of imagination. Size and shape can be adapted to your space.

"BUT that ain't the way my pappy made sorghum syrup," is the constant refrain I hear whenever I mention my sorghum mill. I know. Your pappy, whether he lived deep in Dixie or decorated the northern fringes, used a somewhat similar mechanical contrivance powered by a mule or horse, preferably one with the two near legs worn shorter from plodding round and round—and round. Sorghum mills, like liquor stills, seem to have few in-betweens. They're usually either one man affairs or else they blossom out into huge enterprises, a distillery on the one hand, or a syrup manufacturing plant bigger 'n a consolidated school, and turning out the sticky stuff by the million gallons.

As is usual, Uncle Charley came to my rescue with his infallible memory. "I had a cousin once't who went off the deep end and run a sorghum mill. Had an old steam threshing machine engine he hooked up to it. Building he rented was one of them sugar cane mills, sort of a relic of olden days, it was. Likely I got a picture of it in my album."

Well anyway, it's a picturesque sort of building and if you have no desire for an antiquated sorghum mill you

can always find other uses for a sturdy structure of this sort. Sorghum cane or grass, unlike its uppity cousin, sugar cane, has no value as a sugar maker, but sorghum syrup is much sought after. Boiled down to sugar it is said to be so black and bitter and unsweet that even a sweet-toothed bear will back off from it. Sorghum is also much used as silage, a feed for cattle, it stands 8' to 12' high with a diameter of $\frac{1}{2}$ " to 1" and can be found growing as far north as Ohio, while sugar cane is confined to the southernmost states.

MATERIALS LIST

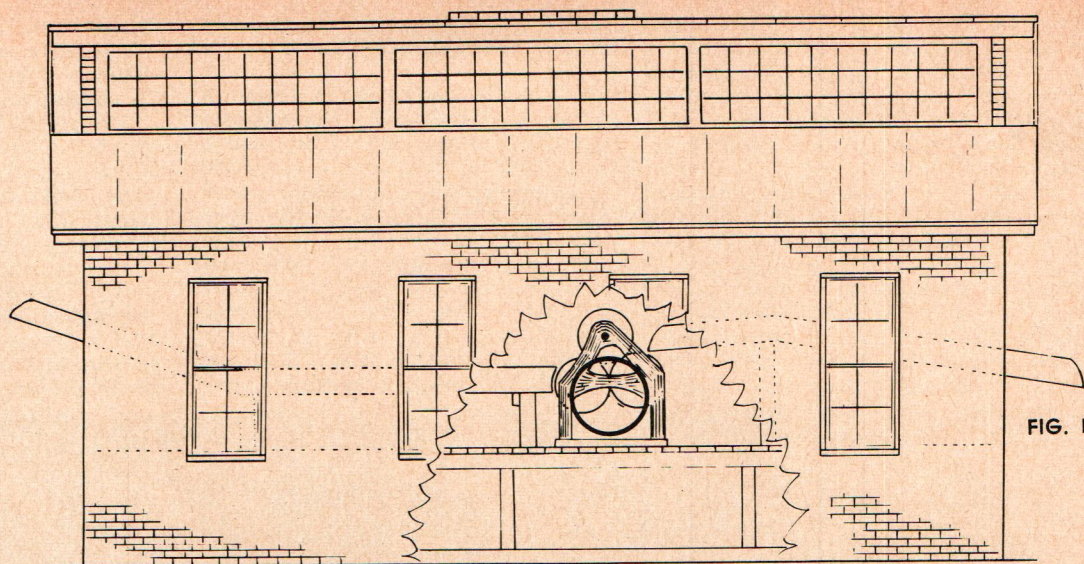
15" brick for walls and chimney
(3 $1\frac{1}{2}$ " x 12" sheets)
5" $1\frac{1}{16}$ " x 3 $1\frac{1}{2}$ " sheetwood for floor
1" $1\frac{1}{16}$ " x 3" balsa for roof
11" $1\frac{1}{32}$ " x 3" balsa for roof overlay (optional)
1" x 5" piece clear cut film or acetate for windows

The outside measurement of the mill is 25' x 35'; inside is 24' x 34'. Starting with the floor (which will fit inside the walls), cut from $1\frac{1}{16}$ " sheetwood a piece 24' x 34'. Now to the side walls. Cut 34' from a piece of Northeastern's red brick sheet, which is 25' wide, then split this in two equal pieces, making two walls each

$12\frac{3}{4}$ ' x 34' (the side walls fit inside the end walls). One wall, as may be seen in Figure 1, has four window openings each 3' x 7', which after being cased with $1\frac{1}{32}$ " x $1\frac{1}{16}$ " stripwood, will take windows $2\frac{1}{2}$ ' x $6\frac{1}{2}$ '.

The rear wall has no windows but has a 12' wide chimney centered (Figure 2). Cut two matching chimneys from your brick of the dimensions as shown, noting that the inside chimney is $1\frac{1}{16}$ " shorter (cut from base) as it will rest on the floor. From $1\frac{1}{16}$ " balsa cut a matching piece to the outside chimney and cement these together. Cut out the two arching fire holes at bottom. Now, from $\frac{1}{8}$ " balsa, cut a matching piece to the inside chimney and cement them together, then attach both inside and outside chimneys to the wall, slipping a piece of $1\frac{1}{16}$ " balsa in the gap above the wall. To the inside chimney build an addition $3\frac{1}{2}$ ' x 12' by 7" high, the width of the chimney, as shown in Figures 2 and 3. In the top of this are the pans in which the syrup is boiled.

Figure 3 gives a pattern of the end walls which are 25' wide and $12\frac{3}{4}$ ' at the eaves and 20' high at peak. The end shown has a wide door, while the opposite end has two small doors.



LEFT: Early sorghum mill patterned after early sugar cane mill, powered with Matchbox threshing machine engine HO model is made of brick siding.

The fuel is stuffed in from the outside, heating the vats from which the syrup is broiled. Small size of model would be especially good in O $\frac{1}{4}$.



Each has a window through which the conveyers project with hinged closures that drop down out of the way.

As may be noted in the photos I have aged Mr. Northeastern's brick with the muddy footprints of time—although this scene takes one back some fifty years, even then the structure was no babe. Some months back I described my brick aging process in connection with a brick warehouse article, but since I've carried it a step further here. I'll give it again. Using Sanford's Tempera show card paints (water) available at most dime stores at 15c a bottle, I smeared a mixture of green and red on a piece of glass, resulting in a rusty brown color with blotches of red in it. I then took one

of these manufactured household sponges, touched it lightly to the paint, and pressed it against the brick surface. Sort of a hit and miss bit of dabbling, so to speak. Beauty is, if you don't like the effect, a damp cloth will wipe the brick clean and no harm done. But there is more. Using a cheap water color set which contains ochre, a sort of straw color, and a fine pointed brush, you go down the mortar lines at least every other one, distorting them somewhat. Helps too, to dab at the vertical mortar joints and even have a go at an occasional brick. The results are gratifying and the wall taking on a mellow warm look.

We're ready to assemble walls and

floor, but if you're going to install any machinery, now's the deadline. It's optional whether you set the conveyers up on the four foot platform as I have it, or put it on the floor and put longer legs under it. Figure 1 gives a pretty good look-see at the essential machinery. Three rollers, each about 4' long by 2' in diameter are set in a frame of cardboard. Conveyer belts of canvas (facial tissue) run in four foot wide troughs. The sorghum is unloaded off the wagon at one end, passes through the rollers (back circle is belt wheel which actuates rollers and in turn is powered by belt from steam engine) and in some manner, which not even I have bothered to figure out, actuates the

conveyer belts at the same time. The sorghum "squeezein's" runs down into a tub and is dipped up and poured into the boiling pans for cooking. Pretty primitive maybe, but back then push buttons hadn't made it to the hall of fame.

Should you want some sorghum grass for your mill go pick a mess of little round stemmed grass, or failing that, use tan and light green thread stiffened with cement . . . or rob the bristles from your wife's pastry brush. I built a raised platform around the chimney with steps at either end and put up some shelves

with a supply of cans of syrup containers. And that about takes care of the interior.

So now, if you're ready, heave-ho and up with the walls. The rearward roof is cut from 1/16" sheetwood or balsa, 19 1/4' x 37 1/4' with a cutout for the chimney. While optional, an overlay of 1/32" balsa with the grain running at right angles to the lower piece, gives the roof a more finished and attractive look; this piece should be 19 1/2' x 37 1/2'. The smaller front roof is 12' x 37 1/4', with an overlay making it 12 1/4' x 37 1/2'. Both are painted to simulate roofing paper.

Should you ever be troubled with warpage, a light touch with a hot flatiron to the convex side will quickly remedy the condition.

The clerestory light is 4' x 34', calling for a piece of clear cut film or acetate of this size on which lines have been drawn to simulate 12" x 12" panes. This is sandwiched between 6" wide (1/16" HO) stripwood 1/32" thick which, when cemented together, is set between the ends of the structure. Needless to say, the roof is removable so that one can get to the interior. You'll also need to make the four windows which meas-

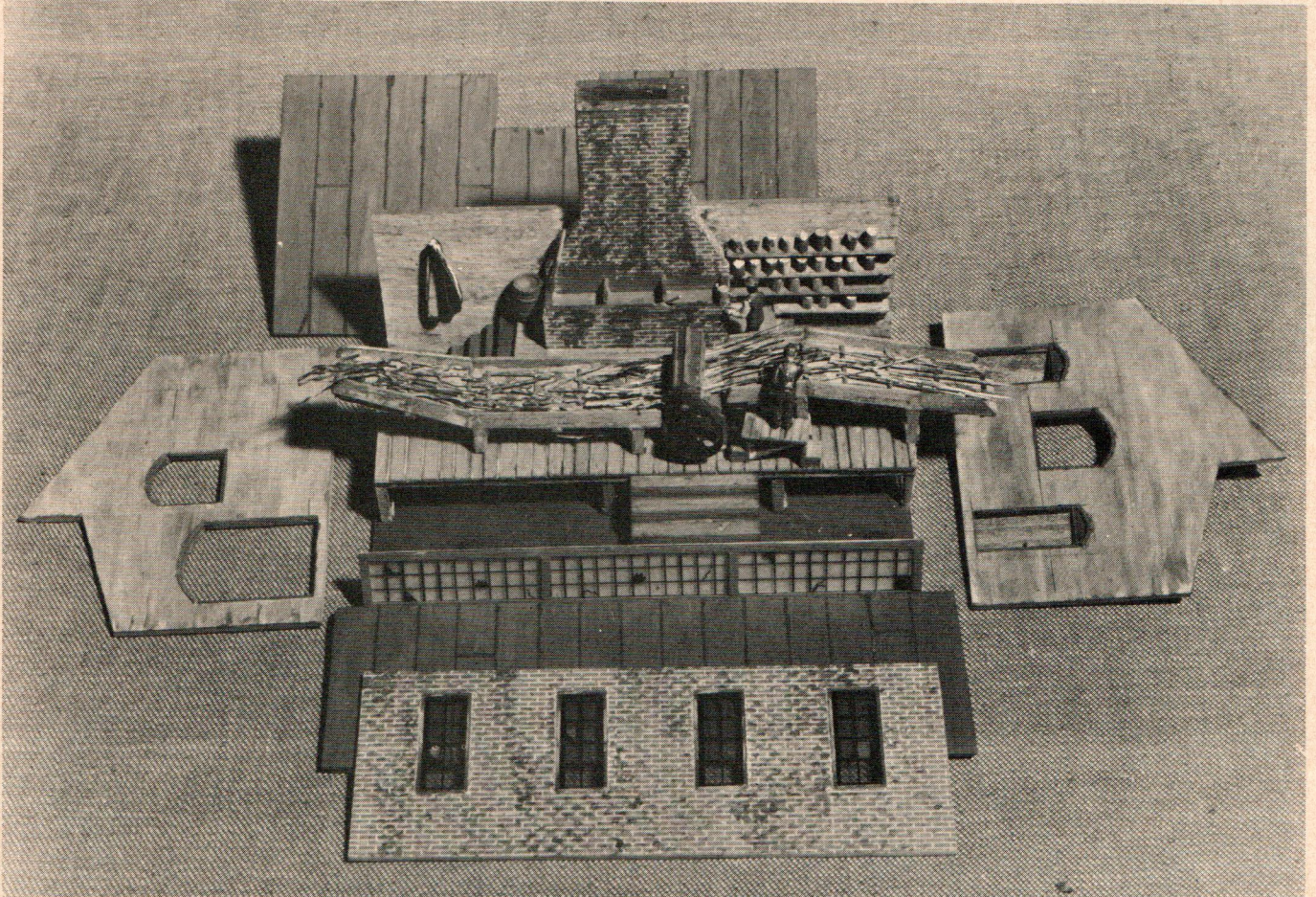


FIG. 2

Exploding view of preassembled parts also shows the complete scrapwood interior detailing: vats built into chimney, conveyor belts and rollers (two below, one above). Design is mid-1800's.

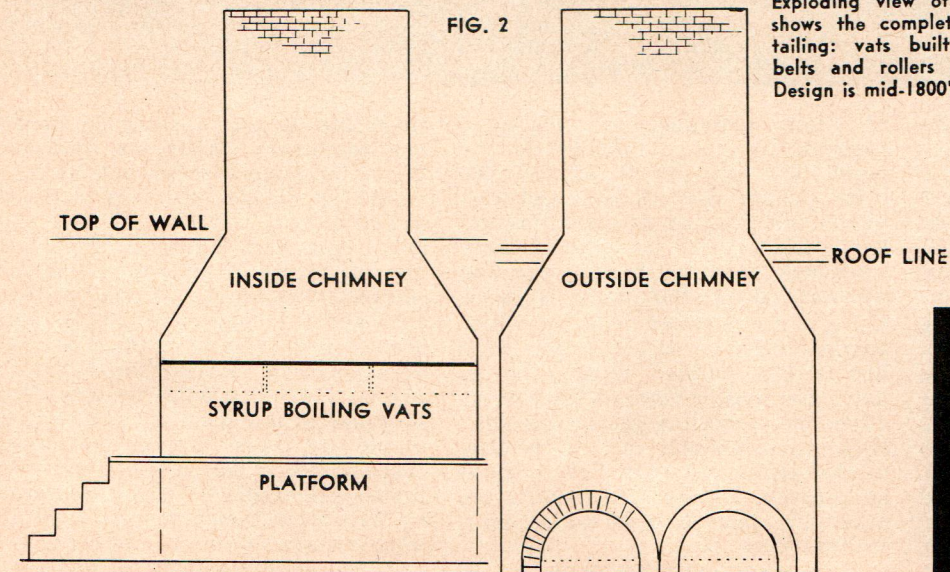
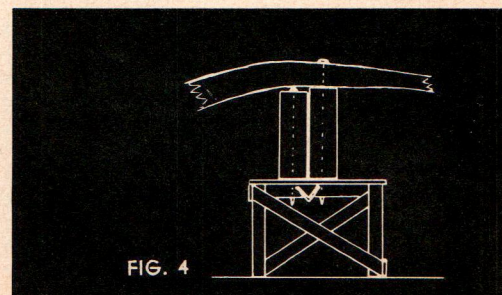


FIG. 4



ure 2½' x 6½' and contain eight panes.

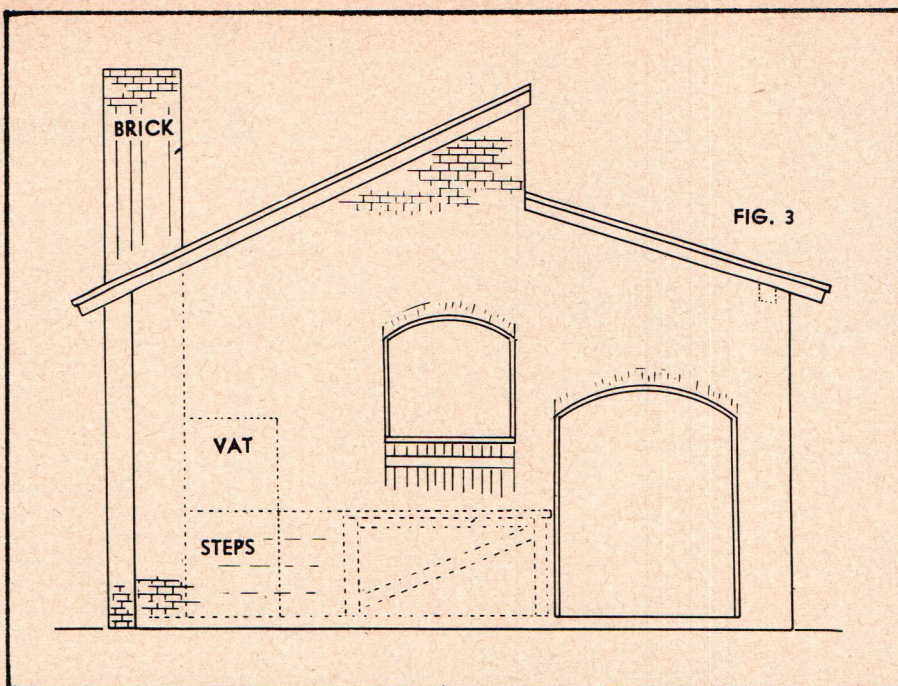
In setting up the photographic scenes I backed the old threshing machine engine into place, blocked the wheels and ran a six inch wide belt to the wheel inside and we were ready to go. A supply of wood, and perhaps a bit of coal is needful to keep the syrup boiling . . . and of course there'll be need of some incentive to keep the farmers hauling their sorghum to the mill. Like maybe a jug of something more potent than sorghum syrup. I asked Uncle Charley if his cousin's business venture had been a success.

"Nope," he admitted. "Tradition and the times was agin him."

"How was that?"

"Well Cousin Elmer, he was out of step with the times. He put his syrup in cans. Folks was used to sorghum in jugs. Jugs went glug-a-glug. Cans didn't give off no glug-a-glug. Cousin Elmer went broke. Next season the building was a cannery."

Well . . . anybody want a cannery?



• • •

More primitive method of squeezing sorghum is still seen in some sections, using one horse power to squeeze cane. Squeezings are boiled down over open fire in tub shown in rear.

And for those who insist on a mill like dear old pappy had, see Figure 4, also the photograph of mill in action. I made mine in an hour, of balsa, and the drawing shows a one horse mill in its simplest form. The table is 5' square, 3¾' high, with 1' x 3½' rollers. A crooked tree is usually cut for a sweep. I made mine of balsa.

35' long, pinned to the roller at 10' from the butt to give it balance. A sapling (small broomstraw) 30' long, fastened to the sweep so that two thirds of its length extends out in front of the horse so that a line may be hooked from it to the horse's bridle. About all else you need now is a barrel to catch the "squeezeins."



Athearn display kept new SD-45 diesel in constant operation hauling 20 cars for three days.



Elliot Braun of Atlas holds an advance copy of new Atlas \$3 King Size Customline plan book.



Lionel returns five 6464 boxcars to line: WP blue feather, CG, Santa Fe, GN, and Rio Grande.



Big news at Bachmann was return of Plasticville O gauge building line. HO buildings continue.

Trains Roar Back At Chicago Hobby Show

OVER 5000 hobby people took in the largest Hobby Industry Association of America convention and trade show this past February at Chicago's famed Sherman House. Biting sub-zero temperatures plus heavy eastern snows prevented the crowd from being even larger.

Slot car racing again came in for its share of attention with no sign that the new hobby is as yet leveling out. Model railroading, already on an upswing in 1965, made a fantastic recovery with more new locomotives already available and promised for this year, than have been available in years, in other than handcrafted brass imports.

New locos were exhibited by Athearn, Tyco, Varney, Associated Hobby Manufacturers, with other new items anticipated from Merzbach and Nathan Preston. Lionel's line has again been beefed up and Bachmann has brought back its O gauge structure line. Railroad exhibitors displayed more enthusiasm and confidence than they have in many years.

Athearn

A snappy looking booth and a new freight car line would have been enough to make most hobby show registrants stop and look, but the big crowd stopper at Athearn was not one, but two brand-new low hood Electro-Motive diesels: the 3600 hp. SD-45 and the 3000 hp. SDP-40. Both models use the same die-cast chassis and power unit but have somewhat different one-piece molded superstructures.

The SDP-40 is a high-speed locomotive with an extended hood for train heating equipment and is intended as a replacement for earlier E units no longer in production by EMD. Available road names include undecorated, B&O, C&NW, NYC, Santa Fe, and SP. List price is \$14.95 ready-to-run.

The SD-45 is very similar but has a conventional prow shaped end rather

than the boxy end of the SDP-40. Road names include SAL, UP, PRR, CB&Q, SP, and ATSF, plus undecorated.

Both units have a center mounted motor equipped with a GE Lodex permanent magnet, 6-wheel trucks, and chassis mounted couplers. Metal strips eliminate the need for wiring and both units disassemble in seconds for servicing. As per usual Athearn practice, the hoods snap in place without screws. It is our understanding that both units are already being shipped to hobby shops.

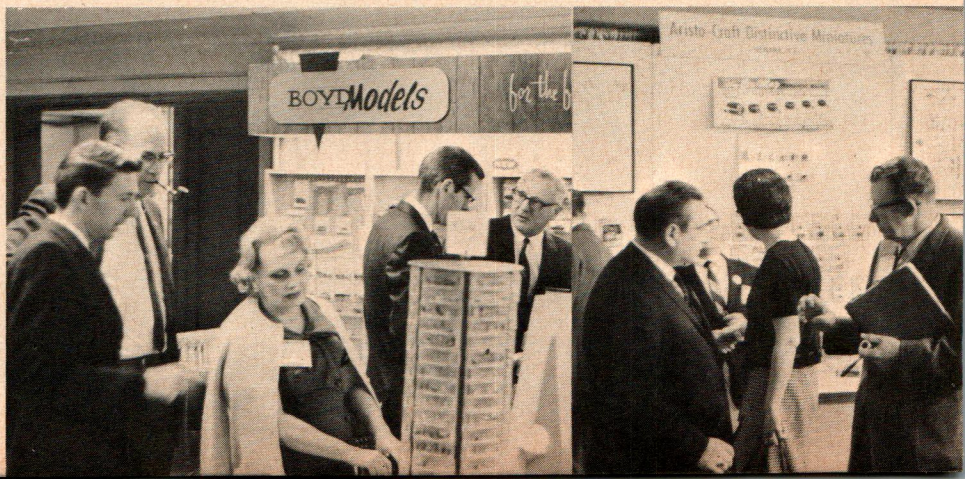
Coming shortly from Athearn are a giant 6000 hp. EMD DD-40 with 16-wheel drive, optionally single or twin motor powered; an EMD GP-35 with 8-wheel drive; and an EMD SW-1500 Cow and Calf switcher at \$10.98 per powered unit. This one can be ordered as a straight single unit switcher, two cab switchers, or cow and calf, or even cow and two calves, powered or dummy to suit your needs. It looks like Athearn is really rolling along at full speed this year.

The wheels, incidentally, on the two new diesels just released are to RP-25 design, metal. One SD-45 was in continuous operation for several days hauling 25 cars, with no overheating.

Bachmann

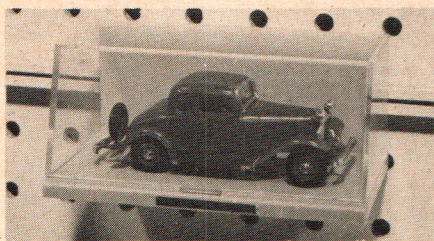
Bachmann's O gauge structure line returns to the Plasticville lineup. Among available items are the picket fence, switch tower, signal bridge, watchman's shanty and gate, church,

Booths were colorful and attracted plenty of attention. Here are A. B. Boyd, Aristo-Craft, Model Die Casting, Ulrich, and Varney.



32 people assortment unpainted, bungalow, Cape Cod house, barn, ranch house, suburban station, gas station, two-story house, split-level house, and a New England rancher. Some of these structures are on the small side for quarter-inch scale but are good for background scenery or S gauge use. Especially recommended are the 32 people, crossing shanty, and switch tower.

Bachmann's Plasticville HO line continues with the reintroduction of a few old favorites, notably the house under construction. All Bachmann buildings feature prefinished plastic molded parts which snap together.



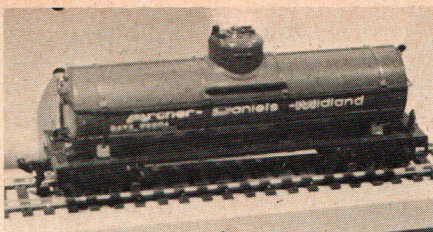
0 scale Ford coupe, one of 24 new detailed auto models by Renwal, from 1903 to 1966.

Renwal

Renwal has come up with 24 different automobiles in their "Collectors Showcase Series," all to 1/48th scale, happily identical with O gauge. The cars are all in kit form, pre-colored. Cars include 1903 Olds, 1903 Rambler, 1910 Stanley Steamer, 1911 Buick, 1925 Ford Model T, 1934 Duesenberg, 1930 Packard Victoria, 1931 Cadillac Phaeton, 1939 Mercedes 540K, 1914 Mercer, 1916 Stutz, 1929 Ford A, 1932 Ford Model B, 1940 Ford Sedan, 1965 Corvette Sting Ray, Jaguar XKE, Ferrari, 1950 Ford convertible, Alfa-Romeo, plus several racing cars of various make. Detailing on these small replicas is excellent and include brass and chrome finishes and clear windshields. For period model railroads, these cars will be great scenic additions. The kits are priced at 89c each. When not used on the layout, each car can be placed in a see-through plastic display case packed with the kit.

Ambroid

Ambroid will have another new 1-5000 kit available this spring of a modern new C&O car and we'll report on it thoroughly when its avail-



Among new road names in Varney freight car line is blue Archer-Daniels-Midland tanker.

able. Another new Ambroid product is called Starkle and it is an Ambroid type model cement mixed with tiny glittering particles in the following colors: gold, silver, red, blue, green, and multicolor. Light catching the dried cement causes it to glitter, thus making Starkle useful to modelers who want to simulate signal lights, headlights, street reflectors, and similar uses.

Starkle can also be used to write personal and model railroad club names on railroad hats and shirts, decorating, and other holiday uses.

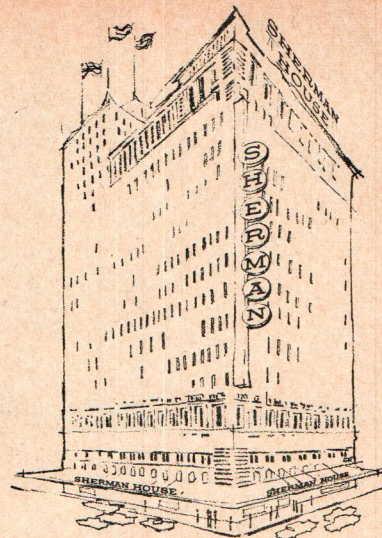
Varney

Varney has added a Pennsylvania GG-1 to its lineup featuring a heavy pre-painted and lettered die cast body and eight powered drivers, pantographs, and operating headlights. The kit assembles with a screwdriver, though a file and pliers usually come in handy. The loco is shortened slightly from the very long prototype but is long enough so as still to retain the massive look of the original. The Varney No. 500K GG-1 at \$24.98 utilizes the one-time Penn Line dies.

Varney has also introduced a new line of streamlined (shorty) cars of high impact styrene construction with zamac parts (these also utilize former Penn Line dies and hence are a perfect match for modelers owning Penn Line cars). Cars have brass wheels, painted and decorated bodies, NMRA type couplers, and are offered in full dome, coach, baggage, and observation car styles.

Varney's freight car line also has new road names available. One we spotted was a blue single dome tank car lettered for Archer-Daniels-Midland Company with GATX numbering, used for shipment of linseed oil and other similar vegetable oils.

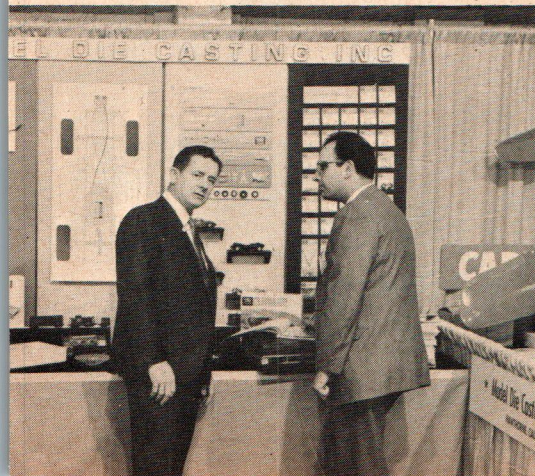
Kit builders will also be interested in Varney's No. 200K Berkshire kit

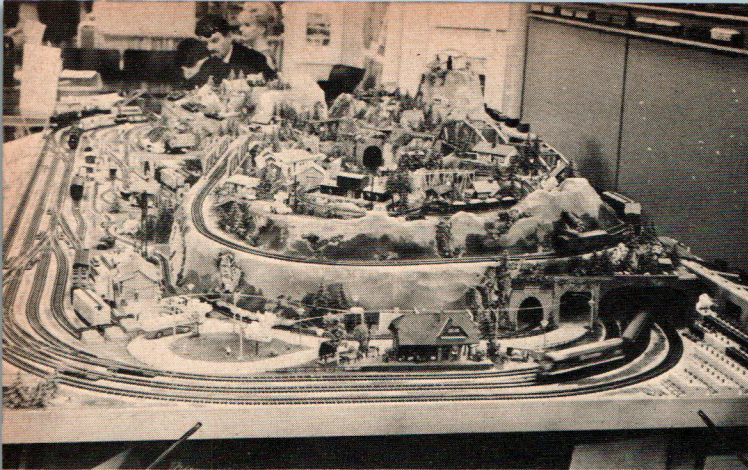


Continental's HO structure kits are now pre-colored. Modular units assemble many ways.

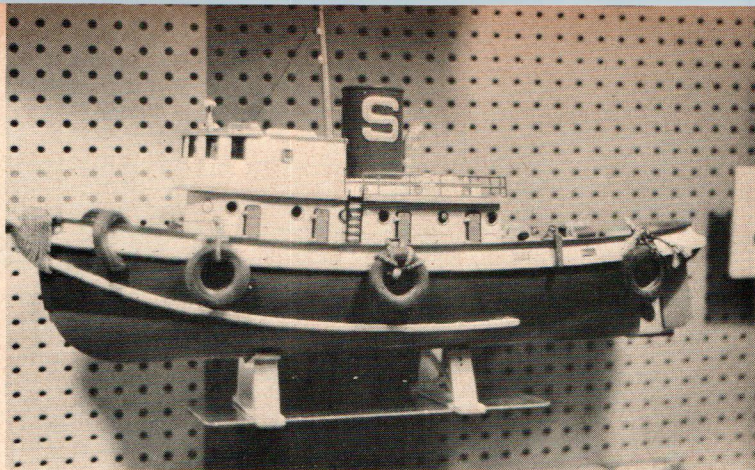


Tyco's Roger Poindexter at the controls of the Tyco display layout.

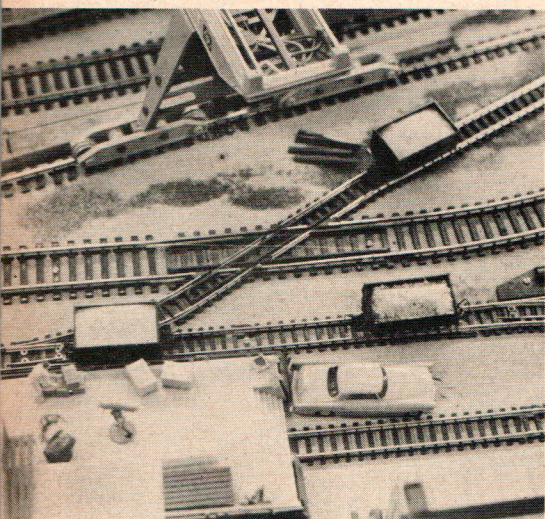




Fanciest layout seen at any HIAA show in years was this HO giant by Associated Hobby Mfrs., loaded with assorted AHM locos, cars, accessories, including cab-forward, HO-HOn2½ crossing, trolleybus, cablecars, tanks, and track.



Plastic tugboat kit by Pyro in 1/8" scale is suitable for use by HOers as waterline model.



AHM Minitrain HO-HOn2½ crossing permits narrow gauge trains cross standard HO line.

powered with a DC-71B motor and featuring fully assembled valve gear, pre-drilled holes, and decorated boiler. This loco measures 13" in length, weighs 3 lbs., and will take an 18" radius curve. This loco is a powerhouse and lends itself to detailing with Cal-Scale and other lost wax parts. Kit price is \$49.98.

Permacraft

Permacraft's scenery line remains basically the same, with the addition of the new tunnel portal kit consisting of a reusable plastic tunnel portal mold and two packages of Perma-Cast. With the kit, the modeler can cast as many Perma-Cast tunnel portals as he needs. Tunnel portal styles available include the PC-20 single track stone type, PC-21 alternate style single track stone portal, PC-22 single track concrete portal, and PC-30 double track concrete portal. The kits list at \$1.98 each at your local hobby shop. Finished portals are also available at \$1.25 each for single track, \$1.50 each for double track styles. Perma-Cast, a special hard lightweight plaster, is also available separately at \$1.00 per one-pound package.

Atlas

Seven new structure kits should be available at hobby shops shortly, if not there now. These are all molded, pre-painted, in the \$1.29-\$4.98 price range. Buildings include twin log cabins, chapel on the hill, a modern church, a six-story motor hotel, a 14-story office building, a five-story professional building, and a lumber and saw mill with water wheel.

Highlighting Atlas' railroad display was a new el-shaped layout, one of a number featured in the new \$3 Atlas "King Size Plan Book" of Custom Line HO Railroads. This is a big one with a page size approximately 17x11". In addition to a number of specially designed Custom Line layouts by John Armstrong, a number of photos describe easy conversions of Atlas kits to make otherwise unavailable units. One striking swingbridge built from several Atlas truss bridge kits and other parts is worth the price of the book alone.

Ulrich

Newer modelers may not know of Ulrich's all-metal line of open freight cars, now RP-25 wheel equipped. Offered in a variety of pre-painted and lettered road names, the car types offered include a triple hopper car kit at \$3.85, offset side twin hopper at \$3.45, standard twin hopper at \$3.45 (peaked end on N&W), a general service gondola at \$3.45, a composite gondola with outside bracing at \$2.85, and either standard or truss rod flat cars at \$2.85.

Ulrich's original track cleaning car kit is also still going strong at \$3.45 and resembles a boom car with a tank mounted on the open end.

A. B. Boyd

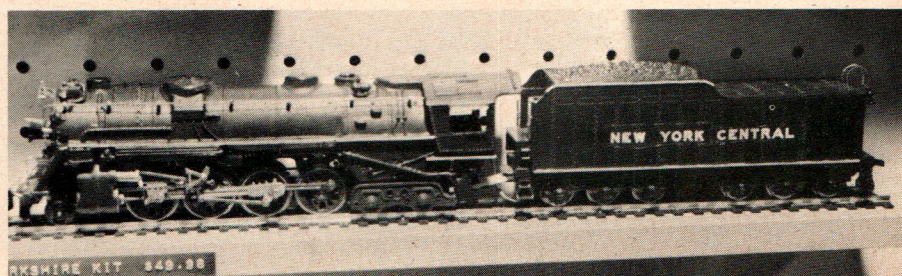
Boyd will shortly have available a plastic unpowered kit of a self contained ballast tamping car. The 4-wheel unit lends itself to powering with any of several 4-wheel power trucks available in HO. Too large to list here, the Boyd line is extensive and covers HO figures, structures, scenery items, vehicles, and rack locomotives. Especially noteworthy are the Vollmer industrial buildings, notably the older red brick structures and a wide variety of tanks. The units can be combined into tremendous industrial complexes.

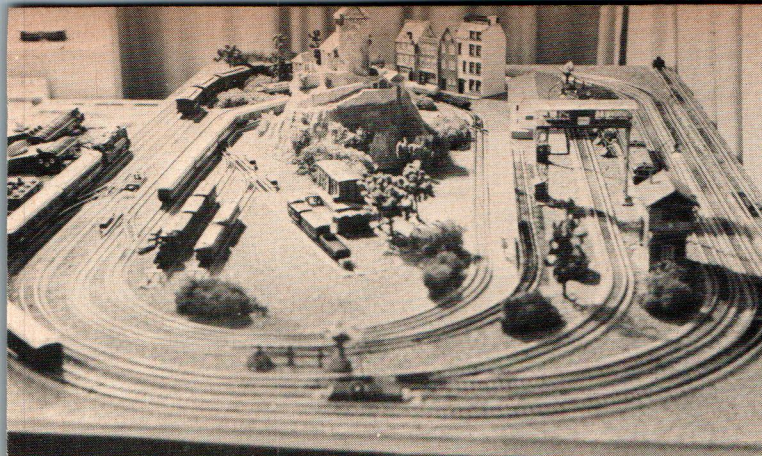
The Heinzl locomotives will go up grades as steep as 45% when used in conjunction with special Heinzl cog equipped track.



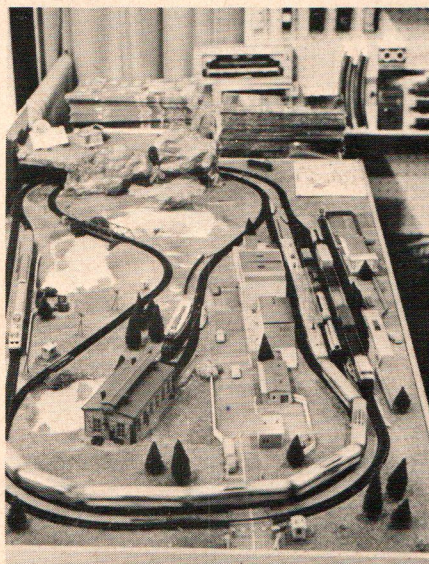
Ambroid's Art Laneau stands by cabinet of built-up Ambroid cars. Next is C&O Coil Car.

Varney super Berkshire kit weighs 3 lbs., will take 22" radius curve; can haul over 40 cars.





TT and N gauge layouts were put through their places in Nathan Preston booth display.



Merzbach's Arnold Rapido N gauge pike ran a few Minitrix cars, showing how new Minitrix coupler is compatible with the Arnold line.

Associated Hobby Mfrs.

AHM's giant scenicked layout contained just about every now available item offered through AHM. HO_N2½ trains rolled around merrily with surprisingly few derailments. Several new HO_N2½ track items are new for 1966, notably a standard/narrow gauge crossing at \$1.49 to be available this summer. Other new pieces include 21°, 24°, and 45° curves, crossings and switches, bumpers, rerailers, and uncoupling track. Other new items, not yet in the tooling stages, are in preparation and are best described at this time as delightful. The entire Minitrain line has been in short supply and will probably remain that way for a while but all advertised items are available as supplies arrive.

In HO, locomotives are the big news. Now at hobby shops is the big SP Cab-Forward 4-8-8-2 at \$43.95, designed to take 18" radius curves. Also new and due for spring delivery is a New York Central J-3a Hudson with the original 14,000 gallon tender, at \$29.95. Coming this fall are a 19" long Union Pacific 4-8-8-4 Big Boy and a big Electro-Motive E-8 in at least four road names. All of these

are manufactured by Rivarossi, as is the AHM Berkshire and 4-6-6-4 introduced in 1965. A 2-4-0 J. W. Bowker is also due in the fall of 1966.

An all-brass, Japanese-built Pennsy J-1 2-10-4 taking a 22" radius curve is also due this spring by AHM at \$89.95, RTR, unpainted satin finish. Quantities will be limited.

Two new passenger cars are also scheduled. First a coach this spring for Santa Fe and PRR, with a companion modernized type RPO in Pennsy and NYC colors. These are all \$3.95, RTR.

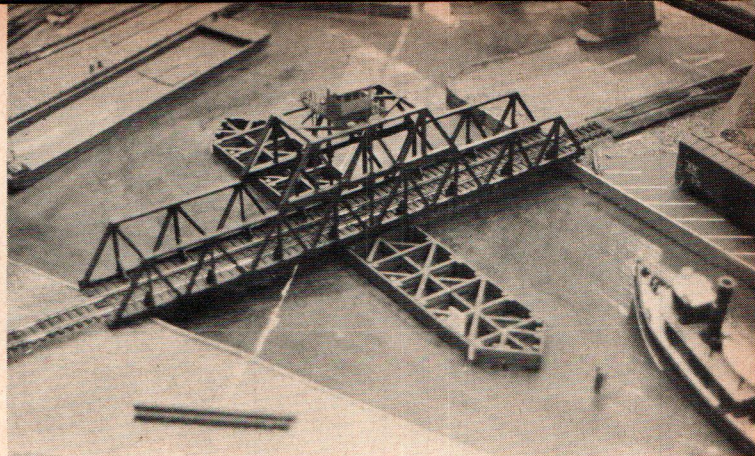
Also new is the Casadio track line due this spring, optionally in nickel, silver or brass. Casadio is a complete HO sectional track system with molded simulated wood ties and T-shaped code 100 rail, compatible with other brands of HO track. Especially interesting is the remote control 3-way switch at \$10.95 n.s., curved switch at \$6.96 n.s., and double slip switch with two switch machines at \$9.98 n.s. Compact switch motor design gives widest possible freedom in layout design.

Other new items include Minitanks, structures, and old-time freight cars, with releases scheduled through the year.

Around The Show

A stream of old timers stopped by the RMC booth to sign their best wishes to Charley and Helen Penn at Bumble Bee, Arizona. Helen Penn is recuperating from surgery. Charley published RMC for many years until retirement in 1962. . . . HIAA's Model Railroad Division had its biggest crowd in some years, reelecting Hugh Stephens (Kalmach Publishing) as Chairman and Hal Carstens (RMC) as Secretary.

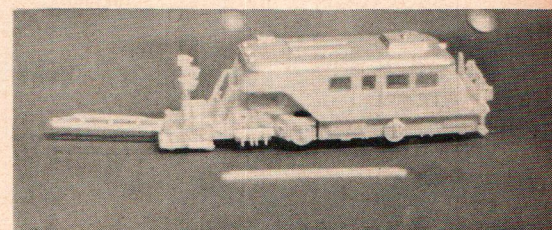
Among visitors were Bob and Marsha Colson, of All-Nation Line, bragging about a new O gauge tuscan red Erie-Lackawanna boxcar. . . . Space is getting short so more next month with news of the new Tyco Prairie and Alco 430 diesel, and Lionel's return of five 6464 boxcars (CG, Santa Fe, Western Pacific blue feather, Rio Grande, and GN orange and green) and the 665 Hudson, and more, plus whatever else is new at the New York Toy Fair and International Fair.



Swing bridge featured on Atlas' Rancocas RR is fully described in new Atlas King Size Customline Track Book, is of Atlas components.



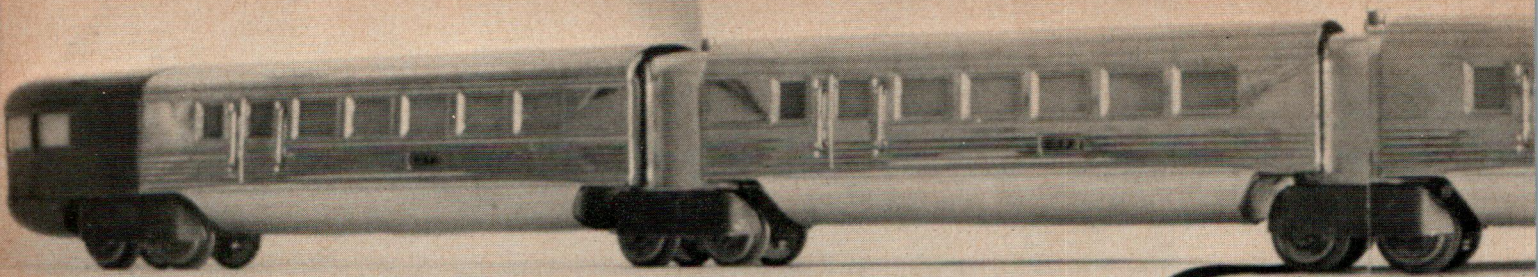
Permacraft offered a do-it-yourself tunnel portal kit for HO in single and double track types.



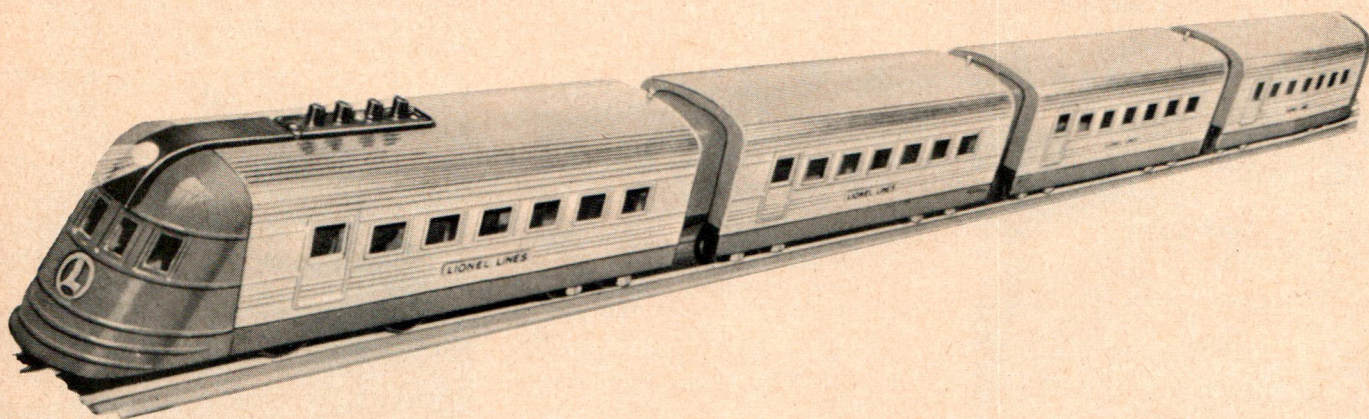
HO ballast tamping car by A. B. Boyd is new plastic kit which lends itself to powering.



Leo Winkler, of Nathan Preston & Co., holds an HO Kibri truss bridge in firm's big line.



Chrome plated 267W Flying Yankee was a 42" long four-car articulated unit modeled after Budd-built Boston & Maine streamliner but



Lionel Jr. Distant-Control streamliner was a three-car unit, 29" long finished in chrome plate with enameled trim. Unlike larger articulated trains, each car was equipped with two 4-wheel trucks.

Lionel Articulated Trains

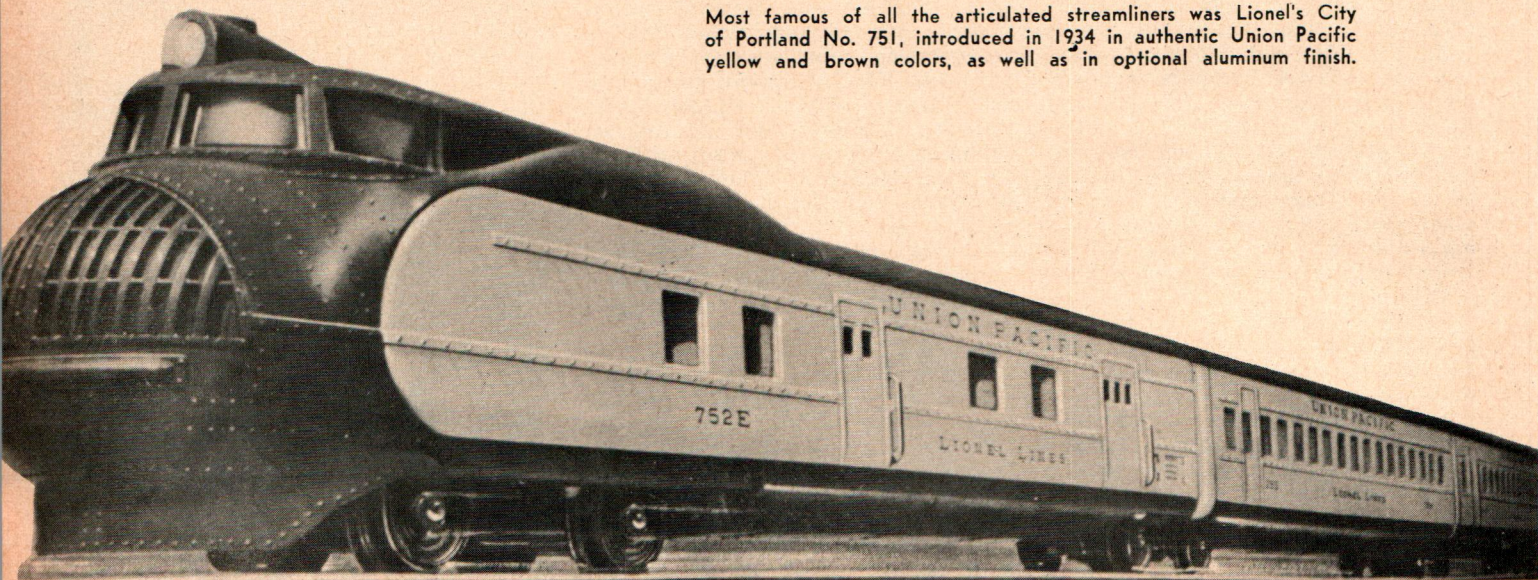
From 1934 to 1941, Lionel cataloged a number of three and four car articulated streamliners patterned after the famous streamliners of the era.

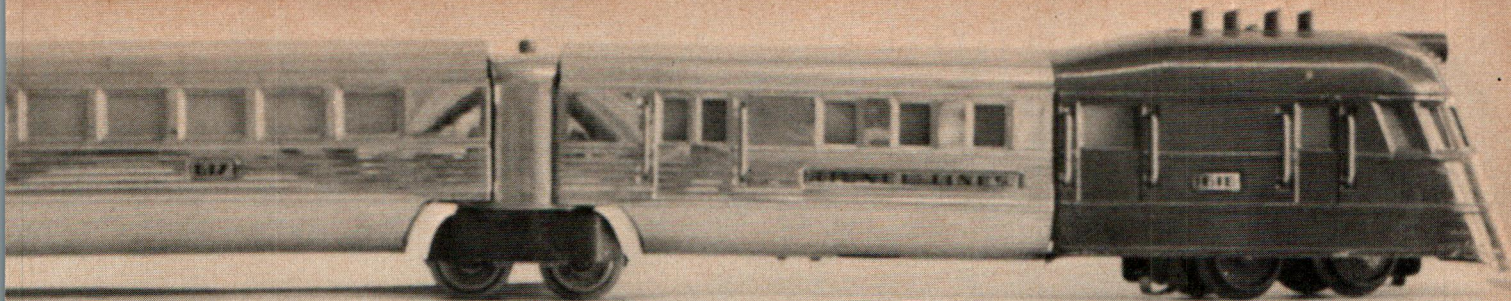
Staff photos, collection of Joseph Ranker.

STEAM WAS riding high on the American railroads back in the early 1930's. New York Central's Hudson was handling the crack Twentieth Century Limited and other great express trains. Other famous trains were handled by superb steam-powered counterparts. Nevertheless, a revolution was already starting. Streamlining had caught the public's fancy and was being applied to both automobiles and airplanes. New lightweight metals were replacing older conventional construction materials.

It was inevitable that the railroads

Most famous of all the articulated streamliners was Lionel's City of Portland No. 751, introduced in 1934 in authentic Union Pacific yellow and brown colors, as well as in optional aluminum finish.





also a dead-ringer for Burlington's Zephyr, built by American Flyer.

would also have to come up with new trains to capture the imagination of the public, whose eyes were starting to drift skyward at sleek Douglas DC-2 and Boeing 247-D aircraft. The answer came in the Union Pacific's yellow and brown bullet-nosed, three-car articulated streamliner and the Burlington's silvery Pioneer Zephyr.

Lionel's 1934 catalog unveiled a 1/45th scale model of the three-car Union Pacific speedster. Pressure die castings were used for the nose, belly, exhaust and tail sections. Catalog copy described it thusly, "It's the sensation of model railroading! The 'Train of Tomorrow.' Reproduced exactly to scale! By every measurement, 1/45th actual size of that streamline beauty of the Union Pacific Railroad. The wonder-train that races to the Pacific Coast at the uncanny speed of 110 miles per hour."

Lionel's No. 751E Union Pacific streamliner measured 46" long in its three-car version. The 752E power unit had a four-wheel power truck without any side frames. Car 753 was a coach with one vestibule, and No. 754 was an observation buffet-coach.

A special vestibule and four-wheel truck gave the train its novel one-piece articulated appearance. Pressing a button on top of each vestibule disconnected the cars. Extra 753 coaches were available and the train was later sold as a four-car unit.

The Distant-Control motor featured double reduction gearing, permitting a wide range of speed. The average 15" length of the cars made necessary development of a wider track, Lionel's famed O-72 track with 72" diameter.

In 1935, the power unit was also offered as a 751W with whistle. The train was also offered in optional aluminum finish and the same Union Pacific lettering. Priced at \$19.50 in 1934, an expensive train at the time, the unit sold for \$22.50 with whistle in 1935.

Lionel also felt the need for lower-priced articulated streamliners and introduced two of them in 1935. No. 267W was an O gauge chrome-plated, four-car replica of the Boston & Maine Flying Yankee, very similar in appearance to the Burlington's Zephyr which American Flyer had modeled. The Flying Yankee train measured 42" and extra coaches measured only 8" in length. Included in the train were the 616W (or 616E) power car, two No. 617 articulated coaches, and the No. 618 observation car. With whistle, the train sold for \$15.75.

A low-priced Lionel Jr. three-car Zephyr-styled train was also offered at \$7.95. The No. 1065E Distant Control Streamliner included a 1700E power car, 1701 coach, and 1702 observation car. The train was finished in chrome with embossed details and

an enameled bottom and panels in red or orange.


If you include the 1535 Diesel-Type Train with wind-up motor, Lionel actually introduced three articulated streamliners in 1935. The Silver Streak measured 29" and consisted of a 1816 power car, 1817 coach, and 1818 observation car. Unlike the electrically powered units, the Silver Streak cars all had two four-wheel trucks and were connected by button-operated vestibules.

In 1936 Lionel introduced another yellow and brown streamliner, the No. 299W O gauge City of Denver. Enameled similarly to the No. 761E, the train used the same coaches and observation cars found in the 616E Flying Yankee. This train sold for \$17.50 in 1937, and measured about 42" in length.

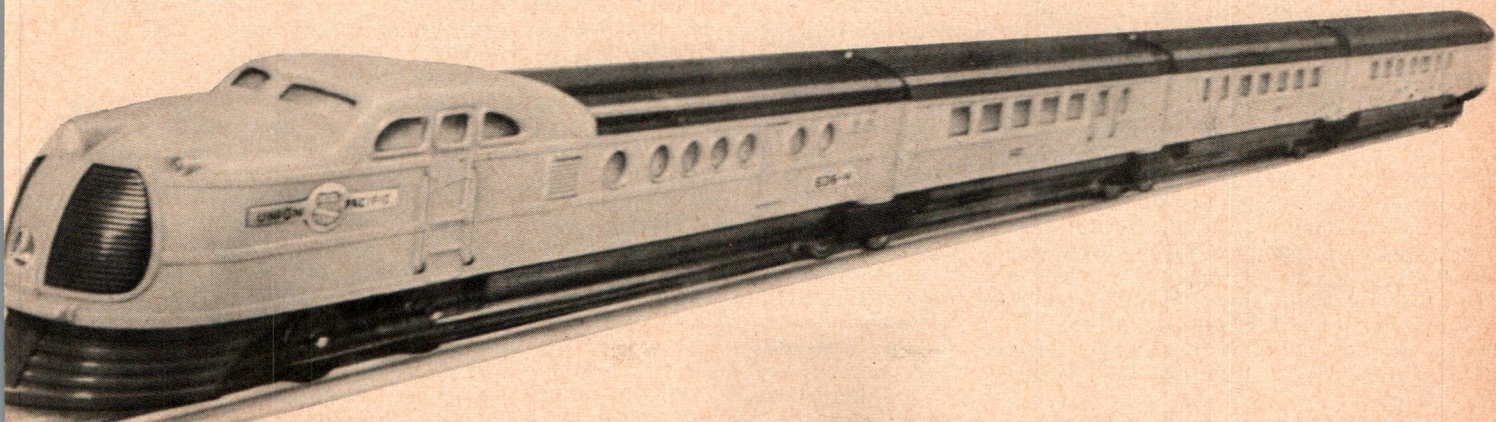
First of the electric articulated trains to disappear from the catalog was the Lionel Jr. (O-27) No. 1071E which made its last appearance in 1937. The Flying Yankee and City of Denver carried through to 1939.

The big 751E City of Portland remained in the line until 1941, though the aluminum-painted version was dropped around 1937.

Many scale modelers converted the 751E to full-scale operation, grinding down the drivers to NMRA contour and sometimes giving the unit a new paint job and authentic Union Pacific lettering with Walthers decals.

Some of the articulated cars in the various sets were also used behind steam-type locomotives, but that is another story. 

Lionel's City of Denver used the same cars as the Flying Yankee but had an EMD styled power car, with the entire train finished in canary yellow and brown. Four car train measured 42½" in length.



SHORT CIRCUIT CHECK LIST

by Bill Schopp

Short circuits on the model pike can be as baffling to the experts as they are to the beginner. Here's a check list of more common faults.

WHEN electricity returns to its source without performing some function such as running a motor, lighting a light, working an electromagnet, etc., you have a short circuit. A "short" if not corrected or broken will cause damage somewhere. Your house, automobile, and electronic wiring is protected by fuses or breakers which blow out when overloaded, either by a short circuit or by too high a draw of electricity—such as three air conditioners on one 15A line! The "too high" protection is seldom needed on a model railroad except when trying to run an O gauge engine on a small HO power pack, but the short circuit protection is.

Few things in model railroading can be as baffling, even to the expert, as a short circuit which occurs where all once was well. Unless the cause is obvious and can be corrected simply, short circuits have been known to keep model pikes out of service for months. They have even been known to cure themselves, as when warpage eliminates a short that it had earlier made in the track, or where a speck of metal shorting a driver burns up—but don't count on this spontaneous healing!

Short circuit protection for model railroad purposes is usually given by a fuse or circuit breaker in the power supply, with sometimes additional fuses of lower amperage in branch circuits. A fuse is often given as the ideal protection, yet this means that a supply of them must be kept on hand. And fuses tend to blow more quickly than other types of protection, such as from a brushing contact short circuit which would not otherwise stop the train. Most power packs now use thermal circuit breakers which take a few seconds to heat up and disconnect the power from the track. Some you have to set again by hand (after they have had a chance to cool a bit), while others are self-resetting. Sometimes a red light goes on when a circuit breaker blows: an additional indication furnished you by the maker of your power pack. There are also magnetic circuit breakers which throw out at any overload beyond their capacity and must be reset by hand. Being expensive, these are not too often used with model trains. They tend to be "trigger happy."

In hunting for a short circuit on your model railroad your procedure,

assuming the short is not at once apparent, is to isolate the various parts. Disconnect power pack from track, from control panel, or both if you have both. Remove all cars and engines from the track, remove superstructure from suspected engine, and so on. The thing to try to avoid is disconnecting all wiring which is a lot of work. Isolation may at once show that, for instance, the engine will run without its superstructure, but not with it, a great aid in finding the cause of the short.

POWER PACK if a commercial product that has given satisfactory service is seldom short circuited inside its casing unless it has been tampered with or mishandled—i.e., dropped. A power pack that has burned out usually shows an open circuit—i.e., nothing at all happens—judging from a few experiences with toy train transformers, a power pack that for some reason starts to "fry" may not burn out the fuse in your house mains. Check your power pack by touching the lead wires from it to a lamp of suitable or higher voltage, or to a spare model railroad motor known to be good. If still suspicious, try replacing your pack temporarily with a spare or borrowed power pack, or even 12v. of batteries.

CONTROL PANEL shorts, if not actually caused by something in the track or on the track, are generally caused by a wire that has come unsoldered or unscrewed and is touching where it should not. This assumes that the panel has previously worked well. So disconnect your panel from the track and have it connected to the power pack only. See if the short persists. You can, if you like, touch a test light or a spare motor to the various terminals to see if power is delivered where it should be.

TRACK short circuits are at times very baffling. With no cars or engines on the track, but with track connected to control panel and power pack, you should have no shorts. If you do, as demonstrated by popping circuit breakers, blown fuses, a deeper hum of transformer inside the power pack, or even by wisps of smoke, turn off power and start hunting.

If switch motor power is not furnished by a separate power source, disconnect the two wires (usually for A.C.) which draw switch motor power from the pack. If this makes no difference, connect them again. If

it cures the short, look for rubbing bare wires somewhere in the switch motor wiring. You might have to disconnect each switch motor in turn if one proves to have an internal short which keeps it "on" all the time. More likely it will disconnect itself by burning out.

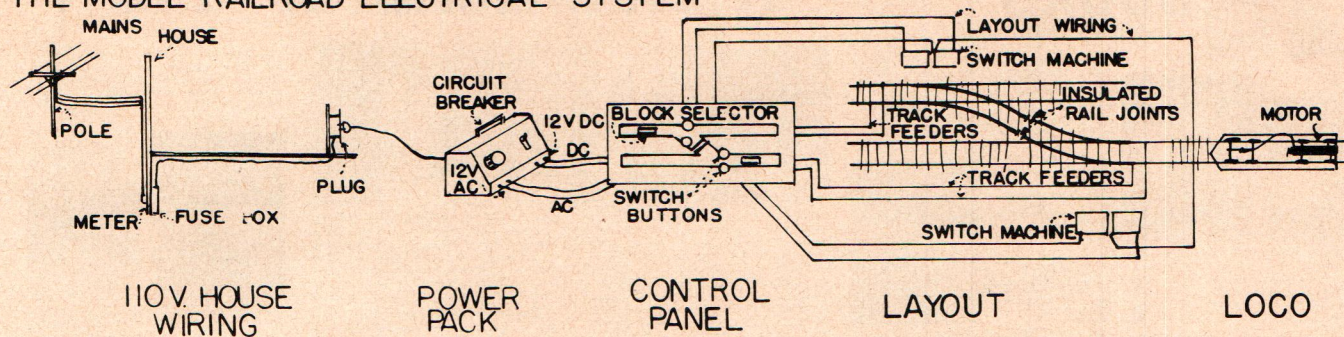
Try turning various track switches and combinations thereof in turn to see if the power will stay on. One seemingly innocent siding or other stretch of track may prove suspect. Auxiliary wiring (if any) which energizes the rails beyond the switch may then be at fault due to an unsoldered connection. A spike or nail holding the rail in place may be sticking through the table and rubbing another wire. Similarly short circuits can be caused via metal screening used as a base for scenery—hence I recommend plastic screening. If a short clears up at some combination of switch positions, possibly one or more of the "gaps" or insulated rail joiners has closed up or been bypassed.

Isolation of the track in bigger chunks can be accomplished at your control panel simply by turning reverse toggles to their center-off position—if they have one. Otherwise you must disconnect wires to each section or block of track. When the short circuit clears up, you have just disconnected the offending block and can proceed from there. The use of so-called common-rail wiring where one rail is continuous all around your pike and the other rail only is broken for blocks, makes disconnecting block by block difficult if not impossible, as does the use of reverse toggles or other switches which do not have a center-off position. True, you can turn your speed control "off", but that disconnects only one of the two wires forming the circuit.

In checking for short circuits in the control panel, in the track, or in rolling stock, your speed control should at all times be full-on, either direction. To set it at half speed may burn out your rheostat which will not have the capacity to contain short circuits.

I'll not say much about short circuits in cars since these can usually be found by putting them on the track one by one and pushing them by hand a bit as full power is turned on. A bad car will throw the circuit breaker, possibly due to bad insulation in a metal wheel, or light wiring

THE MODEL RAILROAD ELECTRICAL SYSTEM



that has broken. Since the advent of plastic coupler pockets for nearly all HO cars, short circuits via metal couplers is luckily rare.

A short circuit caused by a defective engine will at once clear up when the engine is removed from the track. The supposedly defective engine may, first of all, have an intermittent "brush-type" short—something just brushes against something else, as the side rods against the tires of the insulated drivers; or the cab handrails against the tender handrails on the inside of a too sharp curve. Intermittent shorts can very often be spotted by running in the dark. Arcing at the site of the short circuit will show where it is: examination of the site, lights on, will then show little black pit marks caused by the arcing. Continuous short circuits are something else again.

Without removing the superstructure you can very often spot some of the short circuits possible in the mechanism. A common cause is a wireless drawbar which is too far over, too high, too low, or in whose anchorage an insulated sleeve has broken. Some engines have a lead wire to the tender or B unit for pick-up and this may have broken or slid-back insulation.

If the engine picks up by feelers against the drivers, these may be bent or rocked so that they are touching grounded metal, causing a short. You can test the insulation of each wheel while the engine is inverted: touch one wire to the frame, and spark the other wire against one driver to establish which is the un-insulated side. None of the wheels on the other side (the left side on a steam engine sitting on the rails) should spark when their tire is touched. If one does, look carefully for pit marks on its rim, perhaps where it was rubbed by side-rods. A speck of metal or broken insulation between tire and driver center may cause a short.

It is best to replace the entire set if you have shorted drivers. However, sometimes you can pick or drill out the damaged insulating material and fill the space with cement. If the insulation has disintegrated completely, you can slip the tire off (out of the

engine of course), wrap center with cellophane tape, press tire back, and trim up. Tires can be pressed back slightly with fingers if they are askew and rub the side rods intermittently.

I'll not go into detail on intermittent shorts caused by pilot or trailing truck wheels rubbing frame, trailing truck booster rubbing wireless drawbar screw, or tender wheels rubbing floor since remedy in each instance seems pretty obvious—more clearance, or, if feasible, all-plastic wheels. Clearly, too, a pilot that rubs the track at certain points should be given more clearance, usually by bending it up, other times by insertion of spacer washers.

Removing the superstructure may in itself clear up your short circuit if it has been caused by the brush rigging touching the inside of the fire-box, or by a lead wire to tender or headlight, rubbed bare, lying where it ought not be. Personally, I regard working headlights with their GOW bulbs and spidery wiring as a menace to good model railroad operation mainly because the insulation tends to abraid.


Look for pick-up wires from the tender or other truck (of diesels) that have somehow made contact with the grounded brush or the rest of the mechanism. Look for bits of metal that have been picked up by the magnet, or otherwise, and gotten into the motor, causing, instead of a jam-up, a short circuit. The lost screw, the broken screwdriver tip, the broken tap may be found shorting out your motor.

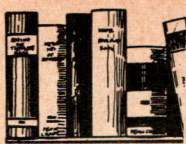
On some motors you will find that the "hot" brush has been insulated from the brush springing arrangement by a piece of electrical spaghetti. This will, especially under heat as from soldering, or from an overheated motor, melt and allow contact where none is intended. Yet it will LOOK sound. Replace it, or in an emergency turn it a little. And don't solder a wire to the brush while the spaghetti is in place. Other styles of motors have their own peculiarities in brush rigging that may cause trouble. The Japanese DC-295 motor with brushes not protruding may have damaged insulation between

brush and the metal pad against which it is pivoted. Motors with finger-springs holding a round brush in place will short out if the finger of the spring is not where it should be. Insulation may break down in the popular Japanese motors which have top and bottom mounted brushes right through the pole pieces.

A truly burned out motor will not be the cause of a short circuit, but a motor which is shorted out internally, will, in time, burn out, causing an open circuit—no power at all will pass, the ammeter will read zero. In checking for a short circuit therefore, whether in a motor or elsewhere, you should not let it persist to the point where the motor or something else burns out. The time lag provided by the usual thermal circuit breaker is generally o.k.

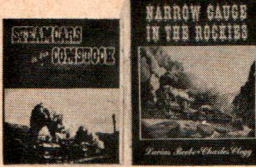
There are all kinds of obscure causes of short circuits in engines and otherwise which one meets up with once in a lifetime. One obscure one that does show up more often is in the Olympia line of big engines—C&O Hudson, Mountain, and Greenbriar. These have very nice metal brake hangers on the drivers. On the left (insulated) side, the screws are inserted not right into the grounded frame, but into little plastic bushings, so that a short circuit between brake hanger and tire is impossible—all but the rear driver. It's brake hanger is screwed right to the frame and so, if pushed out of line, it can cause a short circuit. And it is prone to being pushed around since the trailing truck is right there and swings around quite a bit when the engine is off the track. There are metal brake hangers or shoes on other engines, but more securely mounted so that it would take considerable pressure to force one shoe against a wheel.

Finding a short circuit is, in summary, first observation to see if it can be spotted quickly. Then you must eliminate components such as power pack, control panel and wiring, track, cars, and engine one by one as explained (skipping steps where justified). If all else fails, you might want to resort to the sense of touch—see what is hot or too warm since a short circuit creates heat. 



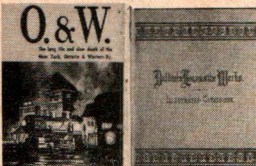
GREAT BOOKS for model rails

A TRAINLOAD OF GREAT



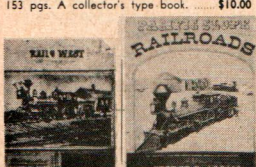
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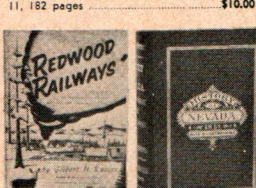
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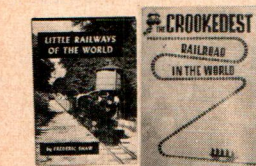
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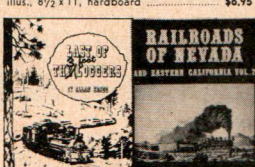


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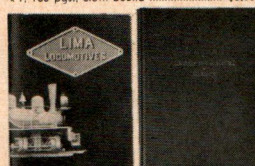
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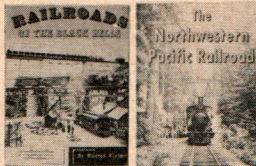


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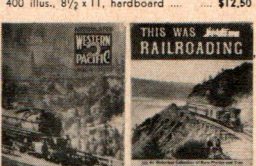
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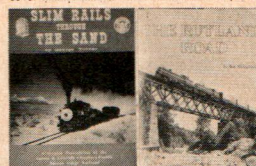
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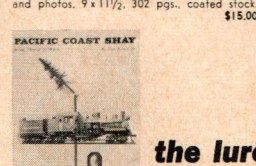
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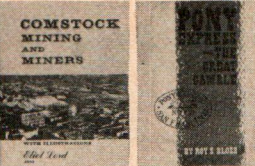
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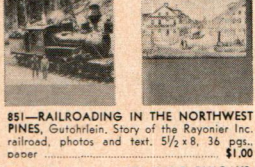
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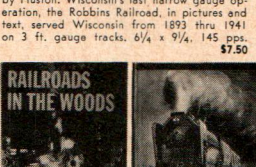
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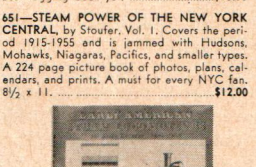
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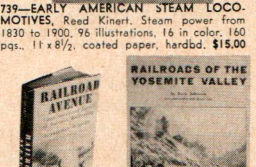


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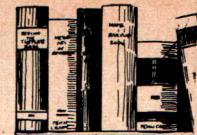


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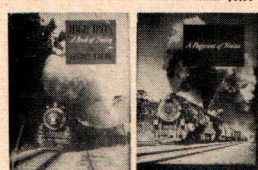


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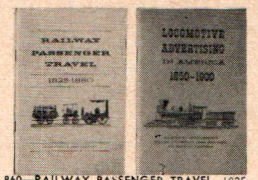
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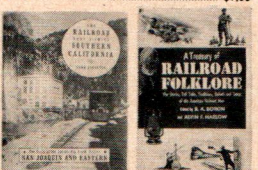
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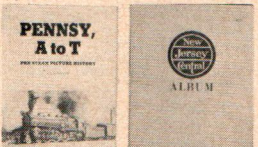
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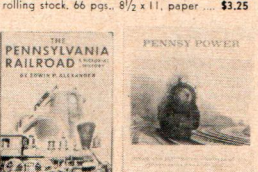
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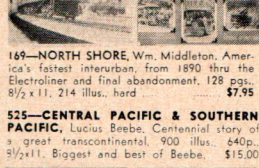
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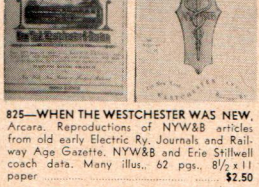
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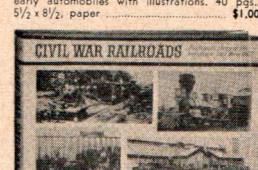
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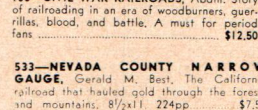


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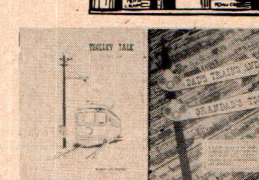
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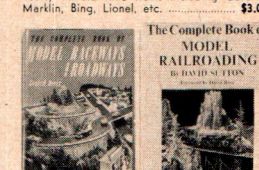
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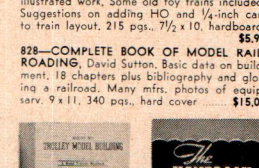
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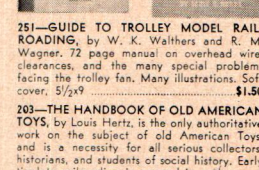


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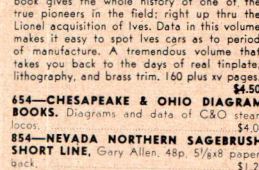
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A Trouble Shooting Schopp Talk (Continued from page 26)

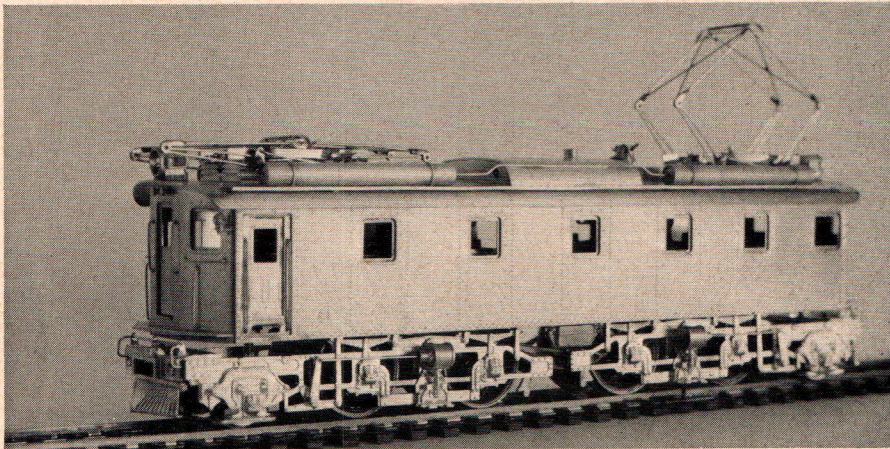
some engines may let the front of the engine tilt down, lifting the back drivers off the rails and reducing traction (9). If only one set of drivers is able to get traction when two or three or four sets are meant to, that set cannot get enough traction and so it slips.

Mention should also be made of a rather rare cause of slip-up which is so baffling because it is rare. This is the matter of a twisted or warped frame. Cast frames are particularly

prone to this, while it can hit built up frames due to mishandling. One or more wheels will be raised from the rail, or, more insidiously, not bearing the weight of the engine. This makes other wheels more prone to slip. After disassembling such an engine down to the frame and drivers, you may be able to twist and otherwise cajole such a frame so that all drivers rest on the track. A die-cast frame, however, may break under the strain of twisting.

Mention has been made of variations in track gauge causing wheels to catch, drivers to slip. But another odd quirk is on a vertical curve at the end, or, more usually, the beginning of a grade. If the turn from horizontal to grade is made too abruptly you may find that long rigid wheel-base engines such as 2-10-0s, 2-10-4s, 4-4-6-4s, and so on will stretch from horizontal to grade with just the end drivers touching the rail, the others held above it. Sprung drivers help, but not as much as you'd think.

TEST TRACK



New Haven EF-1 electric loco by Model Engineering Works is all brass handcrafted model of 1912 Baldwin-Westinghouse design. Model takes 18" radius curves. Type K-7 or K-8 Kadee couplers are recommended, if used. Two styles of decals come with loco.

New Haven EF-1 Electric Loco: HO

Imported by Model Engineering Works, P. O. Box 261, Monrovia, Calif.

Model Engineering Works has a new handcrafted Japanese all-brass HO model of the New Haven's class EF-1, built in 1912 by Baldwin-Westinghouse for service in the New Haven-Brooklyn area. Their boxy appearance, giant pantographs, and appealing roof overhang create a highly desirable model.

MEW's model does justice to the prototype. Rivet detail is neatly etched and nicely sized. Truck side-frames are well detailed and its regrettable that the unusual spoked driver detail can't be seen more clearly behind the truck side frames. Pantograph spring is good.

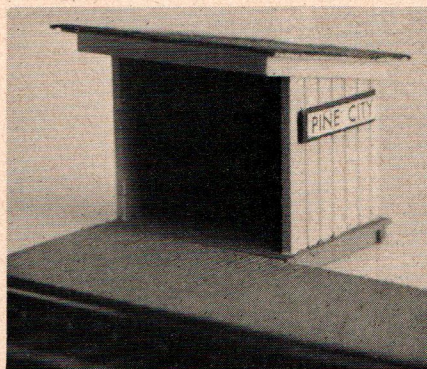
Two vertically mounted Japanese stacked permag motors deliver power through a steel worm and gear to the inner axle of each driver set, with a gear train of alternate brass and plastic gears delivering power to the two outer drivers. In operation, the loco is little noisier than comparable single engined locos and drew less than 1 amp. at full speed running light. Gearing provides a very realistic speed range.

Similar motors were also used by the Boston and Main for Hoosac Tunnel service in Massachusetts. The loco is delivered ready-to-run, unpainted. New Haven decals, both old and new style correct for the EF-1 076-0111 series are provided. A prototype photo of Eng. 093 taken in 1928 appeared in RMC Oct. 1964 page 30.

Not shown on the model but included with the loco are two small grain of wheat bulbs for which 3/32" diameter holes must be drilled in the roof. Also two steps mounted at the left end sides of the loco which are

merely screwed in position plus two extra market lights in brackets. The prototype was painted a dark green with black running gear.

The model is a must for all New Haven and heavy electrification fans. List price is \$52.00 in a limited run.



Flagstop Waiting Station: HO

Mfd. by Mil-Scale Products, Box 4144 Western Station, Milwaukee, Wisconsin 53210.

Mil-Scale's Kit S-11 is a flagstop waiting room measuring 15 x 25 ft. overall, including the platform. Most of the wood used in the kit is precut to size and of excellent quality. Instructions are clear and include an isometric view of the model. This would be a dandy kit for the beginner who hasn't quite built up nerve to start a more complicated kit.

The station can be placed in any position along the platform as might suit the modeler's space needs. Simple as the depot is, a number of variations come to mind in the construction. Gingerbread trim transform the station into a Victorian jewel. The platform would change immensely if laid at a diagonal, or if replaced with a simulated macadam material. The platform can also be lengthened or shortened.

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WANT: Grant, Hobbycraft, Can. Pa. coaches & bagg. cars, blt. up or kit. Will also buy Tenshodo GP-7s & older Varney SW-7. Edward Frager, 15 Amherst St., Portland, Me.

EXCHANGE: Lionel #252 & 259E locos, 600 ser. pass. cars, all orig. pnt. good cond. FOR: Your list. R. Cook, 510 Greenridge Rd., Bel Air, Md.

WANT: O ga. Scale kits for Thomas 4-whl. caboose, compl. Drivers, gearboxes, other mechanism parts. HAVE: loco, car parts, slopeback tenders. Your list for mine. R. H. Jones, RD #1, Box 66, Elkton, Md.

EXCHANGE: John English 4-6-2 all brass whls. & drivers—PennLine 2-8-2, 2-4-4-2, Mantua 0-6-0 w/tender, Varney 4-6-0, Varney SW-7 diesel. FOR: HP, Kemtron or scratch. H. P. McCluskey, 123 County St., Attleboro, Mass.

WANT: 3/4" scale live steam loco. Any whl. arrangement, but must be good running cond. Price, details & pix if possible, first letter. Richard Symmes, 620 Cabot St., Beverly, Mass.

EXCHANGE: Lone Star 000 locos., rolling stock, sws., track FOR: HO—what have you? SAE for list. Dick Pecze, Lex. Manor 11-A, Laurel St., Lee, Mass.

EXCHANGE: Copy Electric Railway Engineering, exc. cond., 2 prototype detailed plans of foreign elect. equip.; 1 copy Cathedism of Locomotive 1874, fair cond.; 1 copy Cyclopedic Eng. contains data-steam locos. FOR: HO traction or best offer. John Hayden, 447 Dartmouth St., New Bedford, Mass.

WANT: Lionel #313 Bascule or #213 Verticle Lift Span Bridge, exc. working order. State price & cond. B. Lingley, 104 Dublin St., Somerset, Mass.

EXCHANGE: Pittman O kits 2 or 3 rail, Max Gray SF 4-6-4, all exc. cond. FOR: O Max Gray large box cab elect. (GN Penn or C.U.T.) Penn NG & N5 caboose, any Ken Kidder or Central Lines. M. Robertson, 4400 Ashland, Detroit, Mich.

WANT: Brass Diamond stack for United's 2-6-2, Prairie King, also interested in unblt. frt. car kits of 1875-1900 era. Capt. Ray J. Hoff, Jr., 54 Stull, Kincheloe AFB, Mich.

WANT: Suggestions or helpful hints on bldg. experimental cars & locos. Gale Webster, 320 Oakwood Ave., Owosso, Mich.

EXCHANGE: PFM HOn3 K-27, K-28 Balboa C-21, 2-8-0, 2 Balboa Union Tank cars, Balboa D&RGW caboose 60' track, sev. turnouts. FOR: PFM DM&IR 2-8-8-4 or PFM Crown ser. locos or Max Gray O Scale locos. George J. Sherwood, 11231 Arrowhead N.W., Coon Rapids, Minn.

WANT: Pittman O Work Trolley car 4 whl., pwr. tr. good cond. Trade most anything. C. A. Adair, 808 Clark St., Vicksburg, Miss.

EXCHANGE: Max Gray W. M. 3 Truck Shay, Penn G-5 4-6-0, PFM USRA 2-8-2. WANT: GN "M" 2-6-8-0, S-2 4-8-4, S-1 4-8-4. Gerald Carson, 11945 Gay Glen Dr., Maryland Heights, Mo.

EXCHANGE: Lionel Trains #8976 0-6-0 w/t 232 Boiler Front. Very good. #203 0-6-0 w/t exc. cond., #256 2 motors. Rubber stamped. Very good. FOR: Best offer in std. ga. trains. Phil Sommer, 8310 Lane, Raytown, Mo.

EXCHANGE: United SP 4-8-4 "Daylight" or compl. set Ambroid 1st ser. 1 in 5000 kits. FOR: Like new United NYC (P&LE) 2-8-4 Berkshire. Robert A. Brandon, 748 Ambois Dr., St. Louis, Mo.

EXCHANGE: 560 plus prs. NMRA horn cplrs., many w/draft gear, Rail Line, Athearn, Varney, Mantua etc. no metal; Atlas elect. ramp, Mantua portable ramps, Rail Line retractable ramps. FOR: Kadee Magnematic cplrs., magnets, cars, locos, switch motors. R. P. Ellis, Box 125, Cascade, Mont.

WANT: Info. as to what heralds Marx sold in 8-whl. (lge. or small) Lith. Metal cars. Am trying to collect. H. T. Moulton, 204 Richards, Portsmouth, N. H.

EXCHANGE: Lionel Congressional set FOR: A. F. std. 4670 w/t. pass. set. Mickey Mouse or Santa Claus handcar. FOR: Ives 25 & T, 1125 & T or 3238. Ti Genz, 28 Division St., New Brunswick, N. J.

EXCHANGE: Misc. HO Lionel diesel trucks, other HO parts, motors & equip. Books, pix, electronic equip. FOR: Pwr. trucks, Exacta Streamliners, Kadee automatics, Jap Brass locos. Your SAE for mine. Joe Pezzino, 103 Mt. Prospect Ave., Newark, N.J.

EXCHANGE: HO Athearn, Gilbert & AHM locos. & rolling stock. FOR: Lionel 0 ga. Southern RR or others, & S ga. equip. James Martin, 411 Dolomite Ave., Bessemer, Ala.

EXCHANGE: HO locos & rolling stock by Gilbert, Athearn, AHM, PennLine GG-1, etc. FOR: what have you? My list for yours. Derrick J. Martin, 4817 Main St., Brighton, Ala. 35020.

EXCHANGE: Hobbyline Baldwin 1000 hp switcher, exc. cond. Cal-Scale detailed. All whs. gear driven. FOR: 3 boxes Atlas Snap Track, straight or sim. amt. of new track. Brian B. Hagen, 1119 N. 46th St., Space #6, Phoenix, Ariz.

WANT: Lionel 0 ga. Alaska cars, good or mint cond. Will trade other cars in like cond. or cash. All ga. Send your list. Roy Lowden, 947 N. Orange Ave., Azusa, Calif. 91702.

EXCHANGE: Builders plate from GTW 0-8-0 & cab plate from Italian 0-10-0. FOR: other builders plates. Also exchange Max Gray HO Erie 4-6-2, plus FOR: Max Gray SP 4-8-4. Also have PFM NP 4-6-0, HOn3 K-27. Still want PFM On3 K-27. Ron Morse 893 Linda Vista, Banning Calif.

EXCHANGE: Custom built Penn RR S-1, others. FOR: C&O 2-6-6-6, SP 5000 by Max Gray. Earl Taylor, P.O. Box 932, Barstow, Calif.

WANT: Lionel 0 ga., better quality 0 & 027 St. Locos, diesels, pass. & frt. cars, incl. 6464 box cars; General sets; 072 locos & cars. Also want KMT diesels, pass. & frt. cars. Richard Meerly, Box 638, Bijou, Calif.

WANT: Walthers Pug pass. cars, or English and Penn-Line (non-streamlined) pass. cars w/or w/o trucks & cplrs. Appearance not important. Also Athearn non-streamlined pass. cars; Stanley M. Smith, 1710 N. Avon St., Burbank, Calif.

EXCHANGE: United HOn3 C&S 2-8-0, AHM ATSF 2-8-8-2, both mint cond., Tenshodo ATSF 4-6-4; Ham radio equip. FOR: Gem 2-4-4-2, Gem 0-4-2T, LMB 4-4-2T, NWSL 2-8-2T, United Climax, or what have you? G. N. Wagner, 2131 Duell St., Glendora, Calif.

EXCHANGE: HO scale "period" equip. Kidder Mogul, CV, LaBelle & Mainline rolling stock. All equip w/CV trucks & MKD's, exc. cond. List on req. FOR: Old time 0 or On3 equip. Jim Hill, 3442 Lime St., Riverside, Calif.

EXCHANGE: First 20 issues of Model Builder, Model Engineer Vol. 1 #1, & Lionel Mag. Vol. 6 #5 (all pub. by Lionel Corp.) FOR: best offer in std. ga. Pat McCabe, 691 Nicholson Ave., Santa Clara, Calif.

WANT: Good, used steel or Brass track &/or sws. 0 ga. inside 3rd rail for high rail, Garages, Bob Peare or .172 scale—I can convert. State switch size, radius, cond. & price. Robert S. Hyde, 21 Janet Dr., East Hartford, Conn.

EXCHANGE: Back issues "Railway Age", Official Guides, Equip. Reg., RR Towels, Book Matches, etc. FOR: HO steam locos, wood, metal pass. cars, kit or RTR, RR timetables, Tourist Guides, Allen RHP, 100 Shennecossett Pkwy., Groton, Conn.

EXCHANGE: Lionel 0-27 cars, acc., kw trans. 2055 loco & tender, 1065 loco, #50 gang car, many frt. cars w/metal trucks. FOR: Kadee magne-matic cplrs, pass. cars, car kits, other HO equip. Mike Kowaleski, 64 Burr Ave. Middletown, Conn.

EXCHANGE: HO locos, Tenshodo, Tyco, Athearn metal RDC's, Tru-Scale milled rdbd., Cal-Scale parts, bldgs., etc. FOR: 0 ga. scale steam, All-Nation, Kemtron, etc. SAE. Your list for mine. A. A. Shoneck, 199 S. Main St., Wallingford, Conn.

WANT: HP TT items. Pay cash or swap HO. J. M. McKercher, 172 Morningstar, Venice, Fla.

EXCHANGE: Lionel 0 & 027 equip. FOR: other Lionel, Flyer, Marx, Kusan, Thomas, Minotoy tnplt. trolleys, & other 0 & 027 equip. SAE. Andy Pigeon, Warehouse Point, Conn.

EXCHANGE: AHM, Athearn, Penn Line rolling stock, track, structures, Hertz "Complete Book Model Ring." SAE for list. FOR: what have you in HO? Also Lionel HO cat. 1959-64. Walter Arnold, 610 Ansley Forest Dr. NE, Apt. 4, Atlanta, Ga.

WANT: ATSF steam locos, espec. United 2-8-2, any Crowns & unusual items. B. Leighty, 5833 N. Kenmore Ave., Chicago, Ill.

WANT: Kusan 0 ga. stock cars & other rolling stock. #2367 WAB A Shell #2345 W.P. A.A. FOR: #2363 A.B. Ill Central. Glenn D. Johnson, 866 N. Monroe St., Decatur, Ill.

EXCHANGE: Athearn steam Pac. loco & tender, Aristo Atlantic, Mantua steam switcher 0-6-0 Athearn; AF old type pass, 1922 set w/#1218 elect. loco, 1 bagg. 2 coaches, Gibson Guitar w/elect. att. FOR: Hudson & Atlantic brass locos w/86" or 90" drivers. Geo. Williams, Box 324, DeKalb, Ill.

WANT: Lionel 6464-150, M.P. w/yellow door, 6464-100, W.P. orange w/blue or white feather, 6464-350 MKT, 6464-450 G.N. 6464-275 w/solid red door, 6556 Katy stock. Ed Philips, 1191 S. 7th St., Kankakee, Ill.

WANT: Scalecraft O locos, S. P. Pac., Hudson, Scalecraft O pass. & frt. cars, Max Gray locos & cars, Scale & Lionel lists also. E. Rath, 1125 Home Ave., Oak Park, Ill.

EXCHANGE: AF Atlantic, 6 cars, track, acc. & 2 trans. SAE for list. FOR: New AHM 4-4-0 Genoa or Reno, or 5 AHM std. coaches, pref. Penn. Ralph Wiechert, 403 E 2nd St., O'Fallon, Ill.

EXCHANGE: 2 3/4" O ga. scale trntbl., MR. etc. from 1947; Internatl. U.P. brass O ga. caboose. FOR: Miller O ga. CA&E cars or kits. T. Heinrich, 44 Woodworth, Roselle, Ill.

WANT: Niles Sleeper, Niles combo's, Niles 57' coach, pwr. or unpwr. by Suydam; also MTS Boston V's; & other traction items: MEW steeple cab. Steven V. Grabiec, 156 Alumni Hall, Notre Dame, Ind.

EXCHANGE: Lionel, Dorfan, Ives track, used; #1625, exc. cond. FOR: #60, 3360; 027 rolling stock & acc. SAE or your list. Leland C. Schwarz, 738 Cottage Grove Ave., South Bend, Ind.

EXCHANGE: HO or cash FOR: Motor for Varney Casey Jones, good cond. William Horvath, 2338 Indiana Blvd., Whiting, Ind.

WANT: Out of production diesel models, HO espec. PFM SD-9 & FT, compl. or shells. John Roche, 333 Forest Rd., Davenport, Iowa.

WANT: Varney Super Northers, Mikados. Only boiler & frame cond. important. Also want pix CRI&P steam, Bill White, 7225 Maple Ave., Overland Park, Kansas.

EXCHANGE: Lionel & AF O ga. incl. some 400 Budd cars, some std. items. FOR: 6464 ser. box or what have you? SAE. C. W. Miles, 1310 S. Olive, Pittsburg, Kansas.

WANT: Info. & pix of Humeston & Shenandoah RR, blt. 1882, S. W. Iowa, later absorbed by CB&Q. Will buy, borrow or trade photos of many lesser known RRs. John D. Lawrence, 9306 Farley Lane, Shawnee Mission, Kansas.

EXCHANGE: Thomas Industries O 1869 bagg. cars & flat cars, all metal, all exc. cond. FOR: John English (Hobbyline) 2-8-2 (HO) or 4-6-2 or PennLine locos, espec. 2-10-0, or will buy locos. Joe Ruby, Harrodsburg, Ky.

EXCHANGE: 500 RM Mag., RMC, Trains, HO Monthly, Model Trains, RR books, HO, 027, O, Super-O equip. FOR: Iron toys & mech. banks. Joseph Dallaire, 8 Tampa St., Lewiston, Me.

WANT: Valiant E-9 loco, also Tenshodo GP-7, GP-9, SD-9, SD-24. Please state cond., rd. name, price. John W. Yates, 125 E. Oakland Ave., Oaklyn, N.J.

WANT: Lionel O ga. pass. cars 2543-44, 2432, locos 2351, 2350—Budd 2559, 2550, 400-4. C. H. Bowe, 9, Johnson Ave., Penns Grove, N.J.

WANT: "Toy Trains" issues, esp. 11/53; also Lionel O locos (M&SL mining switcher; N&W Niagara; GP-9; NYC A-B-A), tenders (12 wh. plastic; Vanderbilt oil); any O European or "Jersey Central" tinplate. Mel Most, 98-8th St., Ridgefield Park, N.J.

EXCHANGE: Lionel std. ga. eng. #7, 42; Lionel cat. 1933, 1924. FOR: P.R.R. class C-1, E-6, G-5, Builders Plates. W. A. Grimm, 204 Gregory Ave., West Orange, N.J.

EXCHANGE: Lionel transfer table, exc. cond. FOR: A.F. "S" eng. or cars. E. W. DeMarco, 8 Willowdale Terr., Albany, N.Y.

WANT: IRT or BMT/or printing equip. State price. Richard Klein, 743 E. 182 St., Bronx 57, N.Y.

EXCHANGE: Penn Line Decapod w/Carey Boiler, Penn Line GG1 Gem S-2, 2 all-metal Athearn RDC-1s, RDC-2, RDC-3. FOR: Elect. type locos, rapid transit or trolley equip. Peter Oppmann, 106 Bronxville Rd., Bronxville, N.Y.

WANT: Kemtron Brake Wheel & Ratchet 1½" scale. Frank DeSantis, Westwind Rd., RD #1, DeLanson, N.Y.

EXCHANGE: Back issues Official Guide of the Railways—1963, 1964, 1965. FOR what have you in HO? W. J. Nelson, 102 Mitchel Ave., East Meadow, L.I., N.Y.

EXCHANGE: 6464 cars, O locos & switchers, Hornby pass. cars, Lionel std. ga., Ives O, back copies RR, MR, RMC, MB, Service Manuals. Andrew Kriswalus, 121 Smithfield Dr., Endicott, N.Y.

EXCHANGE: Lionel O ga. sws., acc., etc. My list for yours. FOR: Lionel O ga. 6464 ser. box cars, esp. #960, 12w, 50, 75, 500, others. Todd Ferracane Pl., Haverstraw, N.Y.

EXCHANGE: Pittman DC-195 for Tyco PM-1. Have 2 Athearn Hustler, Plymouth Tyco mech.; Tyco 0-4-0 Booster kit. FOR: What have you in HO? W. Elmore, 134 W. 109 St., New York, N.Y.

WANT: HO ga. Kidder McKee motor; Suydam 800, 1362, 151, 1010; Central Lines pass. cars. R. D. Miller, 1025—3rd Ave., New York, N.Y.

EXCHANGE: Lionel locos 681, 2328; GN 6464 box car. Also 5-car set w/loco 1666 from 1939, Penn Line 2-10-0, GG-1s, AHM 0-8-0, 2-8-8-2, Bowser 4-6-6-4. FOR: Quality brass locos in HO. George Rowland, 1540 Walton Ave., New York, N.Y.

EXCHANGE: Factory pntd. Tenshodo GN "S-1" 4-8-4 (HO). FOR: Max Gray ATSF 4-6-2 (HO) Heavy Pacific. D. Townsend, 176 E. 77th St., New York, N.Y.

EXCHANGE: Stephen Girard cars, 200, 500 ser. Lionel std. frt. #201, 623, 2332 GG-1, and black & yellow Virginian F.M. Or will buy: Blue Comet cars, 1 or more, Wm. McShane, 2424 Yorktown St., Oceanside, N.Y.

WANT: 1 copy ea. "Railroad Conversion Manual" and "Railroad Service & Repair Manual," both by Hertz. Martin Daly, 27 Quakerbridge Rd., Ossining, N.Y.

EXCHANGE: Orig. #Plate from the headlight of L.I.R.R. eng. #116—O ga. Farm & RR figures from 1935 era. FOR: Gem, PRR—H-10-s 2-8-0, D. Brown, P.O. Box 221, Warrensburg, N.Y.

EXCHANGE: ZW 275 trans. A.F. locos, also some Lionel & Marx locos & cars. WANT: A.F. 0-8-0 loco, Frontiersman pass. cars. F. J. McFeeters, Box 75, Waterford, N.Y.

EXCHANGE: European cat., Marklin, Fleischmann, Trix, Rivarossi, Klein, HAG, Rokal, etc. late 50's, early 60's. FOR: Old Marklin, Lionel. SAE for list. R. H. Nadel, 358 County Center Rd., White Plains, N.Y.

EXCHANGE: Southern steam pix. FOR: Pix steam & gas trains, AF std. ga. locos & cars, and Lionel 260E. Leslie G. Tuttle, Box 191, Rural Hall, N.C.

EXCHANGE: A. F. acc., houses, stores, bldgs., track, etc. FOR: HO bldgs. & acc. Dave Pommert, Box 27, Amelia, Ohio.

WANT: AF "S" ga. Northern Pac. North Coast Ltd. ABA locos or sets; also locos #21155 Dockside, 21089 Frontiersman "Washington," 21918 Seaboard AA. State price & cond. Frank Powers, 448 Bates Dr., Bay Village, Ohio.

WANT: Lists of Railroadiana for trade or sale, espec. abandoned Rutland. Peggy Barcomb, 41 Rose Ave., Rouses Point, N.Y.

WANT: Pennsy J-1 & B-6 (AHM). State priced & cond. Don Schneider, 4337 Crestwood Dr., N.W., Canton, Ohio.

WANT: Thomas cars, locos, parts, cat., articles; same for Acme Model Locomotives. D. H. Cornish, 10169 Sherman Rd., Chardon, Ohio.

WANT: Lionel O ga. "Silver Platter" pass. car. Also 4424w or 4671w electronic tender. R. L. Nilges, 721 E. Broad St., Elyria, Ohio.

WANT: Lionel 3494—500 (Monon) & 3494—625 (Soo Line). State cond. & price. All letters ans. Lists welcome. R. L. MacNary, 621 W. Cook Rd., Mansfield, Ohio.

EXCHANGE: Lionel O ga. #248, 264 w/pass. cars, A.F. O ga., Hafner O ga., A.F. S ga., Ives O ga., Dorfan O ga., Dorfan std. box car—hopper needs trucks. FOR: what are your needs? Sam Hampson, 435 Hamilton Ave., N.E., Massillon, Ohio.

EXCHANGE: Brass cab-fwd., Hobbytown RDC, dom. & imported locos., blt. up metal cars, kits, mags. SAE. FOR: 2-6-2 Prairie type & Sierra artic. locos. Rock Island, Beer & Railmaster cars. Kelly Blythe, 514 S. 78th East Ave., Tulsa, Okla.

EXCHANGE: 763E, 8976 0-6-0, 2350 NH, 2360 Pern., AMT frt. & pass., all exc. cond., also Lionel cat. '38-'41. FOR: Canadian Pac. pass. cars, any F-3 diesels, exc. Santa Fe, 2240 esp., & 0-72 sws. Roy Gunter, 2100 E. 51st, Tulsa, Okla.

WANT: 2400 ser. pass. cars. Any color, L. E. Southerland, 3402 E. 5th Pl., Tulsa, Okla.

EXCHANGE: HO ga. equip. incl. brass imports, or will buy FOR: O ga. scale. State price & cond. R. E. Schricker, 761st Radar Squadron, North Bend, Ore.

WANT: Suydam Pac. elect. 1372, 1100, 950, 800 (open sect.), 257 & Portland "Red" elect. Stanley Soho, 1135 S.W. Gaines St., Portland, Ore.

EXCHANGE: Imp. B&O EM-1 2-8-8-4, 2 Penn Line GG-1s, early Jap GG-1 w/motor. FOR: Shays, Climax or Heisler, or PRR M-1 4-8-2, J 2-10-4 locos. Bruce Saylor, 2836 Leon Ave., Audubon, Pa.

WANT: Early Lionel 258, Red 251, Green 253, 265, Blue Streak set, Red 710, 712 & orange 710, 712 cars, 782, 783, 784 Hiawatha cars, 116 station, 840 pwr. sta. R. C. Heffner, 194 Kleber Rd., Glenshaw, Pa.

EXCHANGE: 2531-33-34, 6464 cars, 3484 cars, locos 248, 253, 254, etc. and HO. WANT: Lionel 2331, 39, 49, 79, etc. cars. 2400-01-02-32-34-36, etc. Stamped SAE. William Ramsey, 223 E. Montg. Ave., Hatboro, Pa.

WANT: Cylinder piston in one-cast piece & front boiler clamp (lead cast piece) for 2-4-2 std. ga. steam loco. State price & cond. Alex Pawlowski, 145 E. 16th Ave., Homestead, Pa.

EXCHANGE: 3" ga. hand made eng. (dummy wks.) & several cars patterned after those used in steel mills. FOR: Model or small steam eng. up to 3 h.p. or eng. (steam) for small auto. Miles Lusk, RR2, Knox, Pa.

WILL TRADE for or buy: Pix Pennsy steam locos #6466, 3344, 3441, 6391, 1267. Thom Boswell, 4438 Malta St., Philadelphia, Pa.

EXCHANGE: Copies RMC, MR, Trains, misc. HO rolling stock. FOR: Pwr. pk., TT flex-track, SAE for list. Bill Nixon, 7215 Baker St., Pittsburgh, Pa.

EXCHANGE: Lionel 1950 #773 Hudson & tender FOR: Lionel #752 Union Pac. 3-car pass. set in yellow & brown, exc. cond. Ronald Herman, Box 224, Pomeroy, Pa.

WANT: LaBelle F&CC Combine &/or bagg. HO n3. Kit or nicely blt. Need 1 of ea. Dan C. Brosey, 107 Crestmont St., Reading, Pa.

EXCHANGE: Fleischmann Santa Fe HiLevel set metal A&A. Both pwr. & Penn Line GG 1 frt. set. FOR: Gem Rdg. Ti loco, Mantua Goat Kit. James Bryan, 410 Rehr St., Reading, Pa.

EXCHANGE: 2 Krauss-Maffei, Penn Line Long Haul Tender compl. plus others. FOR: Steam in HO. M. R. Seidel, 519 N. 8th St., Reading, Pa.

WANT: OO ga. locos & parts. Scale Craft 4-6-0 dr. gear boxes w/gears. Other OO equip. Fred E. Schorr, Jr. 161 Lee Park Ave., Wilkes Barre, Pa.

EXCHANGE: Items on my list of goodies FOR: HO items. SAE appreciated for my list. R. M. Birch, 700 Jefferson Ave., West Brownsville, Pa.

EXCHANGE: A. F. S ga. surplus cars; equip., timetables; slide projectors; FOR: A. F. S ga. equip. esp. want Seaboard, CNW switchers; B&M, CN & BA box cars. SAE or your list for mine. R. J. Steiner, Thistledown Lane, Kingston, R.I.

WANT: Brass boiler for Mantua 8-Ball Mogul loco in exc. cond. Joseph C. Johnston, Jr., 10 Dorrance St., Providence, R.I.

EXCHANGE: Athearn RDC-4 all metal w/gear dr. FOR: MEW 44-ton diesel elect. switcher, or Walthers Gas-Elect. Model 6450 w/U619 pwr. truck. J. M. Pitts, Box 195, S.C.

WANT: Red Ball Rotary Snow Plow #162, tender #164, & Rotary housing part #B-276. Paul Stutzman, 628 W. 13th St., Sioux Falls, S.D.

EXCHANGE: Akane B&O 2-8-8-4; George Stock PRR 2-10-4; Bowser custom Clinchfield 4-6-6-4; Varney custom L&N 2-8-4. FOR: Crown United & Tenshodo locos, or offer. SAE for details. R. B. Woods, 2504 Parkwood Rd., Chattanooga, Tenn.

EXCHANGE: HO Tenshodo custom track-work; imported & dom. loco; rolling stock. FOR: Other HO locos & metal car kits, SAE or my list for yours. Harlan Lane, Rt. 2, Gravelly Rd., Kingsport, Tenn.

EXCHANGE: HO tenders, Varney, Mantua, Hobbyline, HO cars, turnouts, misc. items. FOR: HO list, SAE. Norman Hellenguard, 1604 Norris Dr., Austin, Texas.

WANT: Aurora or Lionel race car set w/large track. Cheap price. Sonny Garza, P.O. Box 132, Cotulla, Texas.

WANT: Suydam HO 950 ser. P. E. Interurban. State cond. & price. Fred Bonte, 3337 Whitehall Dr., Dallas, Texas.

EXCHANGE: PFM Omaha 0-6-0, misc. frt. & pass. cars. FOR: Tenshodo CB&Q SD-9, Ideal turntable, kit or blt. G. A. Middlebrooks, 1206 Wilbur St., Dallas, Texas.

EXCHANGE: ON3 C-16 tender kit by Kemtron. FOR: HO n3. A3C Robert Harmen, CMR #8, Box 369427, Lackland AFB, Texas.

WANT: United Tenshodo U.P. 4-8-4; GP-9, any rd. name; Varney Maine Central Pine Tree Car. Howard Western, 2223 E. 13th South, Salt Lake City, Utah.

EXCHANGE: Nason Hudson & Atlantic tender trucks, Scalecraft roller bearing, Archbar caboose trucks. FOR: 3 pr. Nason Consol. tender trucks, 1 pr. Scalecraft plain bearing & Pullman trucks. Charles Davis, 3663 McCall Blvd., Bremerton, Wash.

EXCHANGE: RMC 1935-1945 or will buy: TT, 2-6-2 elect. loco. Robert Pearson, R. 1, Bx. 194, Chattaroy, Wash.

WANT: Lionel used 736 Berkshire loco. Must be cheap. Kenneth Norton, Box 276, Oakesdale, Wash.

EXCHANGE: PFM Shay, Tru-Scale Ready sws, track, other items. FOR: AHM Cab fwd., Athearn geared diesels, Lindberg SW-7, Atlas N. S. sws. SAE. Jack Matson, Box 265, Toledo, Wash.

EXCHANGE: Compl. collection Lionel of almost all eng. & cars 1938 to 1965 FOR: equal value in O ga. scale items. Also some Kusan & Flyer std. for trade. Mario Morrone, 3545 21st Ave., Kenosha, Wis.

WANT: Boiler Front & under-boiler base casting for 400E, pref. in gray, but any color will do. Don Hilke, 404 N. 39th St., Milwaukee, Wis.

EXCHANGE: Australian Engineers Rules Books, Timetables, pix of steam locos, also 250 cigarette cards (mint) FOR: Railroad or Baldwin Mag., books or photos, P. M. Clinchant, 10 Johnstone St., Cardiff, N.S.W., Australia.

EXCHANGE: New Zealand Narrow Gauge Kerosene Lanterns FOR: HO equip. Ken Cassells, 71 Oxford St., Tawa, N. Z.

PASS EXCHANGE

CLINCHFIELD MOUNTAIN LINES: (Printed) Frank Karcher, Blue Ridge Pkwy., Mile Post 324.8, Spruce Pine, N. C.

DURABLE & HUSKY LINES: (Printed) Joseph P. McCrone, 213 Grayson Dr., Clarks Green, Pa.

SMOKY INLAND & CENTRAL KANKAKEE RR: (Printed) Jerry L. V. Severson, 2525 E. Dayton, Madison, Wis. 53704.

BUMBLE BEE CREEK R.R.: (Printed) John V. Henrikson, 186 Torbay Rd., South Harrow, Harrow, Middlesex, England.

MONTOUR VALLEY R. R. CO.: (Printed) Richard H. Provance, 7220 Gen. Sherman Lane, Affton 23, Mo.

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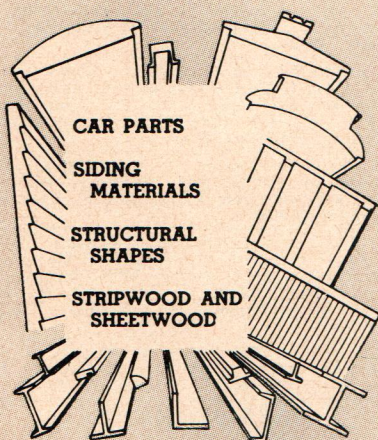
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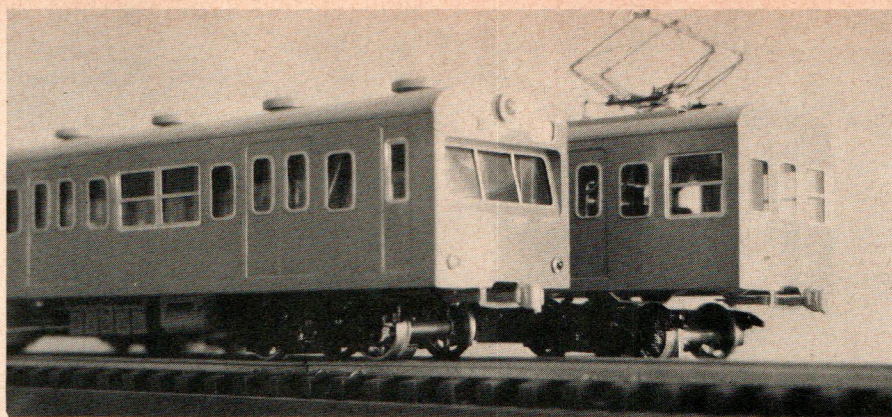
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Rapid Transit Car: O Gauge

Imported by Ken Kidder, P.O. Box 213, San Francisco, Calif. 94101.

Ken Kidder has turned up with some Japanese rapid transit cars that are about the dandiest thing that has as yet turned up in their low price range of \$22.50 per powered unit.

These cars have nearly everything. They are authentically short at 14 inches (56 scale feet). Equipped with a third rail (inside) collector shoe, they are readily operable on track such as Gargraves or Lionel Super-O (O-27 is a bit tight). The pantograph can be made to operate and spring tension is good. Third rail (outside) pickup shoes could be added easily. The wheels are not insulated for two rail (why should an electric rapid transit car be?). Wheel flanges are slightly larger than NMRA standard but should accept NMRA track without much ado.

The cars are finished with an attractive pea green side with aluminum window trim, black trucks, and grey roof and ventilators. Some alternate windows have a light blue finish on the trim.

The cars are designed to operate in pairs, the operator's windows on one end of the car being recessed, much as on a PCC car. The B end is straight. Each unit has an operating headlight and two red marker lights. Couplers are AAR type dummies. Tinplaters could easily substitute All-Nation Lionel dummies, if desired. Other rapid transit type couplers could also be substituted.

The overall design is typically modern rapid transit, not too different from cars in service in many U.S. cities. With their sharp radii capabilities, they could be the answer to a lot of commuter problems on our O-scale model railroads—if the tinplaters don't snap them up first. Car bodies are all built up brass with cast parts. Motor is a universal type inside the car body mounted on the A end truck. Now, how can you float a bond issue with the frau for ten of these units?

Electro-Motive SD-45 Freight Diesel: HO

Mfd. by Athearn, Inc., 11929 S. Western Ave., Los Angeles 47, Calif.

Electro-Motive SDP-45 Passenger Diesel: HO

Mfd. by Athearn, Inc., 11929 S. Western Ave., Los Angeles 47, Calif.

Two brand new Electro-Motive locomotive types are now available from Athearn, Inc., for heavy freight and passenger service. The first of the locomotives is the 3600 hp. SD-45, a long 12-wheeled low hood freight hauler that packs almost as much power under one hood as did three older FT models. In basic design, it follows somewhat the contours of Athearn's earlier GP-9 and GP-30 units but is much longer and larger.

The companion locomotive is the new SDP-40, a big low hood 3000 hp. locomotive geared for passenger service. The SDP-40 sits on the same chassis as the SD-45 and at first glance seems to be the same engine. However, a close inspection of the last 20' of the B end reveals a host of differences. Most obvious is the extended square back of the SDP-40, needed to hold the train heating equipment for passenger service. The dynamic braking protrusions is carried all the way back on the SD-45 whereas the SDP-40 has a somewhat simpler square contour lined with louvers. Positioning of the three roof fans on the SDP-40 is also slightly more forward than on the SD-45 freight unit.

The bodies of both locomotives are beautifully detailed one piece injection molded bodies supplemented with a one-piece clear molded plastic window insert. Horns are also added separately. Handrails are formed wire with the upright stanchions having flattened ends, drilled.

The chassis and mechanism of both locomotives is the same. The frame is a one piece zamac die casting, including the low slung fuel tanks which provide much of the 15 oz. weight packed in each unit.

The motor is center mounted over the fuel tank and sits on a rubberized flating base eliminating noise and vibration. The magnet is of a new General Electric Lodex circular design. The 5-pole armature has a double shaft with molded universal drive



shafts extending in both directions to enclosed plastic gearboxes, delivering power through worm and gear to all 12 drivers. Snap rings facilitate very easy and quick disassembly when required for servicing and lubrication. Brass wheels are equipped with RP-25 wheel flanges. Side frames are die cast metal.

The loco has no wiring. A brass shim strip is fitted over the motor and delivers power to and from the trucks and headlight. Two NMRA type couplers are snap mounted to coupler pockets built into the frame. Substitution of Kadec couplers is simple if desired.

Both locos easily accept 18" radius curves (Snap-Track). Overall length is 8 3/4". Wheelbase is 7 1/4". Operation of the units is good, engines throttling down to a crawl and top speed realistic. We had our two samples operating all day without difficulty with up to 20 RTR cars behind each.

The locos list at \$14.95 each, in the following road names. SD-45: Seaboard, Union Pacific, Pennsylvania, Burlington, Southern Pacific, Santa Fe, and undecorated. The passenger SDP-40 unit: New York Central, Baltimore & Ohio, Chicago & Northwestern, New Haven, Santa Fe, and Southern Pacific. Both locos also available in undecorated versions, all RTR only. For operating or collecting, these two new diesels from Athearn are superb.

Ohio River & Western 24 Ft. Boxcar: HO

Mfd. by LaBelle Woodworking Company, P.O. Box 22, Oconomowoc, Wisconsin.

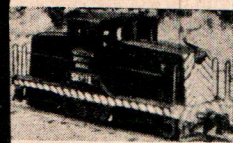
LaBelle's 24-ft. Ohio River & Western boxcar is a joy for any HO modeler. The kit contains LaBelle's high quality milled shapes for floor section and roof, color coded stripwood for trim, scribed siding, castings for brake-wheel, bolts, queenposts, wire for truss rods, track spikes for door stops and guides, dry transfer lettering material, grab irons, and stamped brass ladder material for the stirrups.

Basic assembly follows general practice. Floor assembly is drilled for truss rods and queenposts. Queenposts are inserted, truss rods bent and cemented in place. End blocks are cemented to floor and roof, followed by scribed end siding and fitting and gluing the car sides, all as per the instruction sheet.

A variation in the assembly sequence is suggested. Make up the roof walks and roof end walks and then lay them aside until grabirons and side ladders are in place. This will eliminate any possibility of the roof walks being damaged during additional assembly work.

The lettering is of the dry transfer type. Unless familiar with this material, use the samples provided to get the necessary practice until you have

SHORT LINE LIFE SAVER



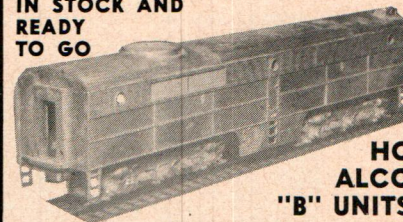
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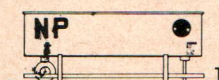
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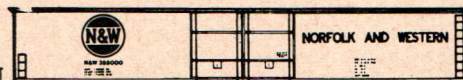
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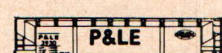
Painesville, Ohio



75-88A Silver car, Black decal



74-12 Red car, White decal



149-33A Jade car, White decal



61-08 Gray car, Red decal

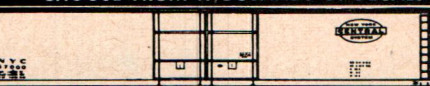
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26-20B Blue car, Yellow decal



82-07 Green car, Yellow decal



71-14A Jade car, White decal

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1455 Black tank, Silver decal



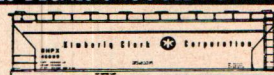
149-75 Jade loco, White decal



89-40A Gray car, Black decal



82-20 Green car, Yellow decal



1469 Gray car, Black decal

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85-16 Red car, White decal



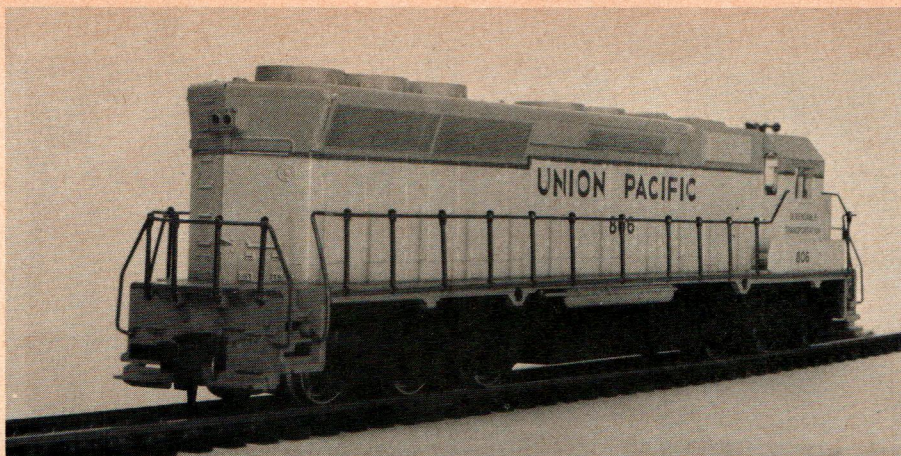
52-13A Jade car, White decal



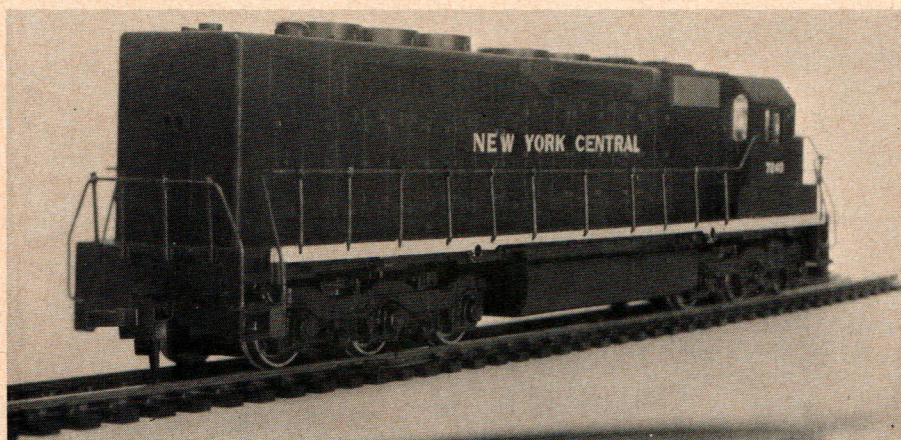
119-20 Red car, Yellow decal



52-40B Gray car, Black decal



Athearn's new SD-45 by Electro-Motive has a die cast frame, 12-wheel drive, and metal RP-25 wheel. Lugs hold superstructure to frame. Loco is offered in SAL, UP, PRR, CB&Q, SP, and SF paint.



Athearn SDP-40 utilizes same chassis as new Athearn SD-45 but molded superstructure is extended for steam heating equipment for use on passenger runs. Road names: B&O, C&NW, NH, NYC, SF, SP.

The grab irons provided seemed a bit bulky for this tiny car but the fussy modeler wanting something more exotic can make his own from the wire furnished with the kit.

All in all, a very fine and uncomplicated craftsman-type kit of an early pre-1900 truss-rod narrow gauge boxcar of an almost unknown railroad. Trucks and couplers are not provided. Trucks should be small size arch bar. The ones on our model appear a bit larger than they should be. Car is painted tuscan red. mastered the technique. Be sure to

follow the manufacturer's lettering instructions to the letter.

S. P. Cab-Forward 4-8-8-2: HO

Imported by Associated Hobby Manufacturers, Inc., 3214 N. Boudinot St., Philadelphia 34, Pa.

AHM's new Southern Pacific Cab-Forward 4-8-8-2 is another superb bit of engineering from Rivarossi, of Como, Italy. It has to be for a 17 1/4" 4-8-8-2 designed to negotiate 18" curves, which this behemoth does with ease.

In order to take 18" radius curves,

Giant 4-8-8-2 Cab-Forward from Associated Hobby Manufacturers takes 18" radius curves because rear driver set has been made to swivel. Loco is finished in flat black paint, has molded boiler.

Rivarossi has pivoted both the front and rear driver sections. On the prototype, the rear sections would be rigid. It also follows that the prototype would not be called upon to take curves as sharp as 18" radius. Swiveling of the rear drivers greatly cuts down on excessive overhang.

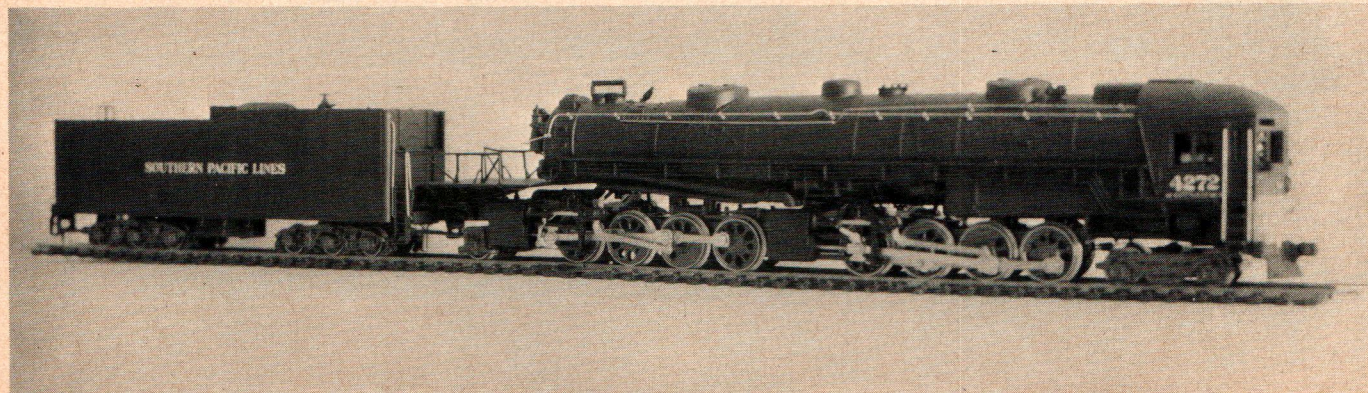
The driving mechanism is essentially identical with that in the AHM-Rivarossi Norfolk & Western Y-6B (RMC Test Track review April 1965 p. 60) in which the cab mounted motor delivers power to both sets of drivers by means of a long shaft through the boiler, with gear boxes to each driver set.

The superstructure is a beautifully detailed one piece injection molding, flat black spray painted, with white cab lettering. A silver panel adorns the can front, below the headlight. A bulb in the cab illuminates the headlight. Wire handrails are mounted in metal stanchions.

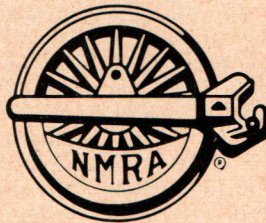
Drivers are Box-Pok type, metal, mounted in stamped metal frames supplemented with molded plastic cylinder blocks and pilot deck. A dummy AAR coupler, non-swiveling is mounted on the cab. An NMRA type coupler is mounted on the tender rear. Our sample ran remarkably quiet, drew about .5 amp. with no load at moderate speed and less than 1 amp. at full speed. The 13 oz. loco pulls remarkably well with its 16-wheel drive. Two tires, one in each set, are equipped with clear neoprene belts for added adhesion. For backing, a few ounces extra weight might be desirable for the big rectangular oil type tender. The tender wheels are used for pick-up power, through a wireless drawbar to the loco. The European flanges tracked well on our code 100 test layout. Operation was very quiet.

The Cab-Forward was an outgrowth of conventional articulated types on the Southern Pacific, where long tunnels created asphyxiation problems for crewmen. With conversion to oil as fuel, it became possible to turn the locomotive around, running cab first. Crewmen thus had fresh air to breath with noxious exhaust fumes well behind.

At \$43.95, even small pike lovers and diesel fans will find it hard to resist this big black beauty, one of the great steam locomotives of all time. The model is more than worthy.



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Gauge or scale..... ☐ 2 rail. ☐ inside 3rd rail. ☐ outside 3rd rail. ☐ Overhead wire. ☐ Other. ☐ AC Power. ☐ DC Power. ☐ Other. ☐ Scale or Hi rail. Total length of track..... feet. If you operate on club trackage only, check here ☐. (Do not list club statistics unless this is a club application.) Control: ☐ Automatic or Semi-Automatic. ☐ Cab. ☐ Manual, other than cab. Do you have ☐ scenery? ☐ A herald? ☐ Exchange passes? Visitors: ☐ Welcome anytime. ☐ By Invitation. ☐ Restricted. ☐ No visitors, please.

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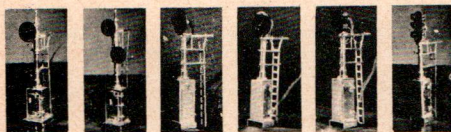
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New York & New England RR

Given a whole spare room for a model railroad layout, the novice model rail will plan tracks all over the table, with numerous tiny pop-up or access holes wherever there is space. The slightly experienced rail will settle for just a table at one end of the room—the top 5x9 ft. on this plan—leaving the remainder for workshop and “future expansion.” The rail of considerable experience will want to build around the walls only, on a narrow shelf, which has much to commend it, since everything is thus reachable. All three of these ways can be combined with part 5 x 9 table, part around the walls, and one or two access spaces, as I have done with the New York & New England in HO.

The doorway, door removed or swinging outward, is at lower right, behind the diesel house so that one must duck under the three foot wide Boston table to enter the main access or control space. The same design could be used with the door anywhere along the bottom or lower left side where the table is quite narrow. Since entry is by ducking under, switch motors should be kept off the bottom of the Boston table to keep them from ripping the shirt off your back, as you bend over to scoot under. This fits in with the prospective builder's plans to use all Custom-Line #4 and #6 switches which have motors attached to their straight sides. Except for the possible shirt-ripping and the difficulties of working underground, you could use regular all-rail frog #4 and #6 switches on this pike. No track feeders would have to be moved, except that the engine service track would have to be a separate new control section (L), with a pair of insulated rail joiners in the crossover which connects it with the yard ladder track.

Trains start over the NY&NE from either of the tracks in front of Boston station, depending on which leg of the wye they will use, and whether they are freight or passenger. Heading to the left, the first station in Worcester where a long stretch of bi-directional double track begins. This continues around the top and right walls, to a switch at the room door to right of the diesel shed. With this 2-track stretch more accessible, it might be interesting to insert a pair of crossovers near its center, so that fuller use could be made of the bi-directional feature of the 2 tracks. IF the doorway were not at site indicated, that end - of - double - track switch would be hard to reach. In that case it could be moved around the corner, down to the right of center-bottom of

plan: it is shown at “new” location dashed only. Of course signals and insulated rail joiners also would be moved.

Single track continues all the way to Waterbury. Around the lower left corner of the room it looks like double track but is not so operated, since the inner track is the yard lead from Boston, which merges with the passing track via a crossover at a tower at extreme left. This passing track which has several other functions continues to Brewster, where single track begins to run up the grade to the wye, where a train may make the same circuit again, or swing into Boston.

Inbound freights at Boston, no matter from which direction they come, stop on the wye while the engine is uncoupled and backed to the enginehouse facilities. A switcher will then move the entire train to the yard tracks, either in-toto or a few cars at a time, as they are classified for the next outbound freights.

Outbound freights from Boston can be made up in reverse of above scheme, and pulled out over one or the other leg of the wye for passage over the main line in resulting direction. However, it is less trouble to have trains all pull out clockwise via the yard lead and left side passing track. Trains which are to continue clockwise take the crossover at Brewster and circle the main line in that direction. Trains which are to run counter clockwise on the main take the top reverse loop and then the other crossover, at left, next to the tower, and so proceed counter clockwise. When, as in most model railroading, the layout is essentially a circle, we do run into such oddities as this, a train from one “terminus”—Boston—leaving via the other terminus—Brewster. This could be eliminated by having a true point-to-point layout, with no provision for continuous running, but experience has proved to me as well as nearly all other rails WITH experience, that provision for continuous running is greatly to be desired on a model pike.

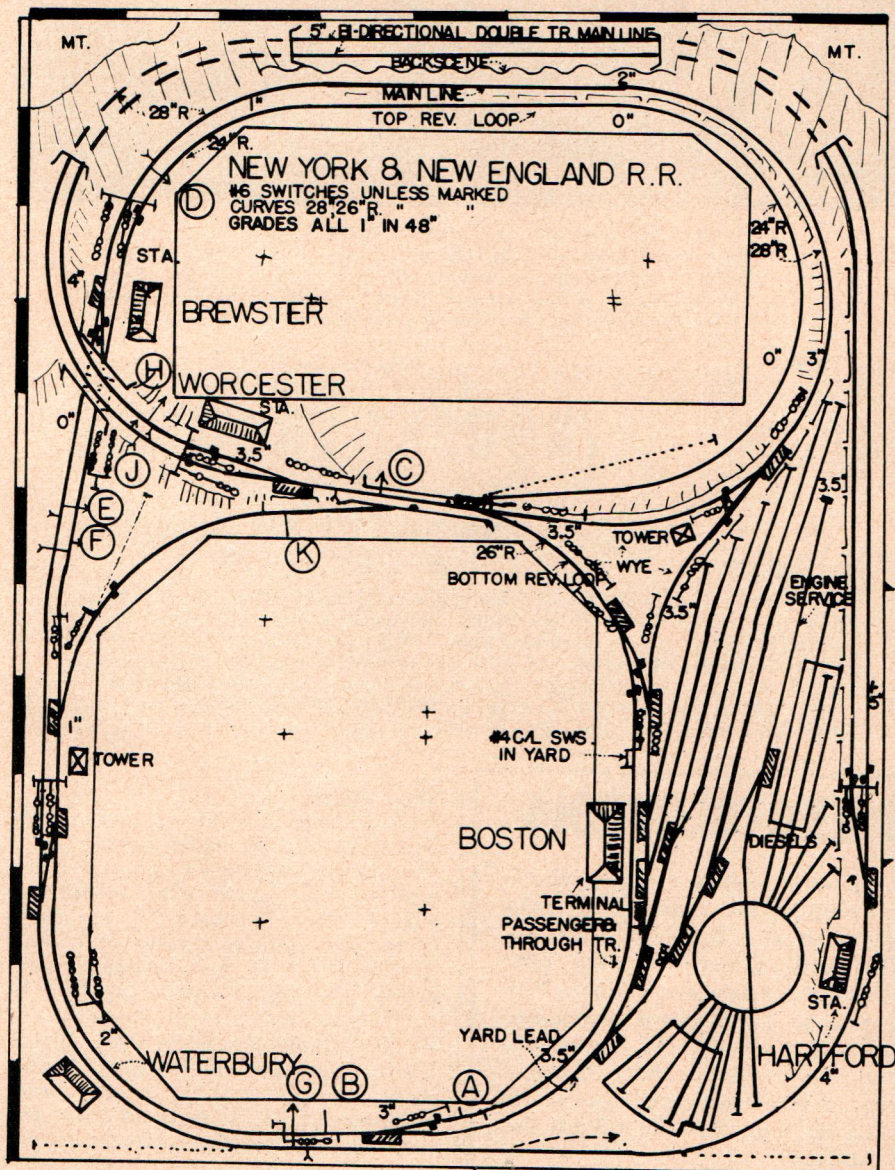
In case you haven't found a “bottom reverse loop” to re-reverse trains reversed by the “top” reverse loop, it is formed by the left leg of the wye. It permits trains which have been running counter clockwise on the main line to change direction in continuous running and be clockwise.

Several optional industrial sidings are shown in dashed lines for those who want to run way freights in addition to the heavier through trains.

Control sections are indicated by

by the layout doctor

Here's a 9 x 12 ft. around the room layout that gives long runs, great scenic possibilities, and fine terminals.



arrow-heads and tails designated by letters of the alphabet. Sections A, B, and K do not have heads OR tails and are reversing sections which MUST be controllable separately.

Curves may be assumed to be all 28" and 26" radii, with only a few designated ones being as small as 24". Thus all but the most gigantic and expensive engines may be run. Matter of fact, UP Big Boys, 4-8-8-4, will take the curves, though it will not be possible to use the outer track of a double track curve if an articulated is traversing the inner track—either restrict operation of articulateds, or spread tracks at curves an extra 1/4" to 1/2" apart—the latter an option not open to you if you are using any fixed radius wooden roadbed.

Grades have been kept to 1" rise in 48" which is about 2%. I specify this

on many layouts because it works out to 1/4" rise per foot, relatively easy to build.

Color light signals are shown as worked out by my Son Walt, whose favorite "doodle" is to sketch an "impossible" interlocking plant, then locate and design signals for it. I doubt if anyone will install working signals, but some might want to put in dummy ones at the right places. Three circles are three color heads; two circles are two color heads, amber and red; one circle is a one color head, just red. Dwarf signals do not have masts which is obvious once you read that phrase. European modelers take installation of proper signals more seriously than we do—after all, we can always say we have cab signals, operate on train orders, or even, on a small pike, on "smoke orders."

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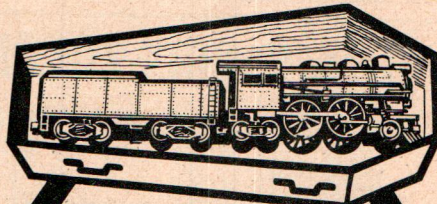
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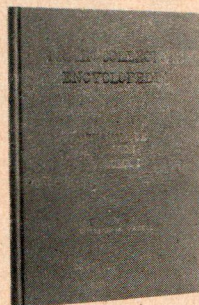


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Shay Parts

T. G.: I recently broke one of the universal, sliding joints on my PFM Shay, and in trying to repair it damaged it even worse, even losing one part. Is there anywhere I can have a new part made at a reasonable cost?
ANSWER: PFM has always proved pretty good about furnishing or getting repair parts, even if they have to be ordered specially from Japan. Write them, or have your dealer write them, describing exactly what is damaged (a diagram helps) and mentioning when the loco was bought since there have been several versions of the Shay dating back through ten years.

Geared Engines

R. F.: I see many more photos of Shay geared engines than of either Heisler or Climax geared in fan magazines so I deduce that more of these were built and used than the other types. Yet they seem so complicated that I wonder why the simpler geared engines were not used more.

ANSWER: Engine crews and master mechanics preferred Shay engines because ALL of their complicated machinery was located on the outside where it was easily reachable for maintenance and repair. Engineers could hop out and lubricate everything without getting underneath, a great encouragement to lubrication.

Stopping at Station

T. S.: How can you arrange to have a train stop at a station, wait for passengers to unload and load, then proceed again.

ANSWER: If you don't want to do it "by hand" with your controls I suggest you get one of the ABBCO Thermal Relays distributed by A. B. Boyd, 1030 S. Grand, Los Angeles, Calif. 90015, and sold by or obtainable by your dealer. Instructions are included. A device with a similar effect was built into various gold tinsplate signals and I have been known to adapt one from a derelict signal, simply changing wiring from 3-rail to 2-rail.

E-8 A and B Units

S. W.: When using two or more E units on the head end of a crack limited, what would be the correct types to use?

ANSWER: Suit yourself. Just back on the Pennsy "Broadway Limited" which had three E-8 units, two facing forward, and one reversed. Almost anything goes these days except that the lead unit would be cab end first. With delivery of new SDP-40 units to the leading passenger roads, expect these to replace aging E units, or supplement them.

Order of Switches

T. M.: I have my layout planned out and will use a certain make of switch, and the switch control levers sold to use with it. Have you ever published an article on the proper order for control levers to be located when not put on a big track diagram board (which I do not have space for?)

ANSWER: It never seemed important enough but glad you brought the matter up. You can number your switches and your control levers or buttons any way you please. In general I would number the switches 1, 2, 3, 4, etc. from left to right in order in which they occur. Then I would locate the levers or buttons in the same order. If you work two switches from one lever, as at a crossover, make some special sign you can feel such as a bit of tape around the lever or a groove across the pushbutton. If you have two groups of switches, or some at a place remote from the others, you might have two separate groups of pushbuttons or levers.

Long Screws

L. B.: In painting my collection of brass HO locos, I find I have lost one of the long screws that, on 4-whl. lead truck steamers, hold down the boiler and hold up the lead truck. The importer of this engine is apparently out of business since mail goes unanswered, so I am turning to you for advice.

ANSWER: These long screws usually have a 2.0 mm. thread at the top, and a 1.4 mm. thread at the bottom with either a shoulder or another nut to press against the bottom of the

frame to hold down the superstructure and cylinders.

Failing the genuine article, and if you don't have metric taps and dies, try this. Take a long (1" or more) 2-56 screw as used by Bowser to hold down their superstructures. If it will not run into the 2.0 mm. tapped hole in the underside of the boiler, retap that hole 2-56 (such taps available at most hobby shops). Since there will not be many threads in the thin brass, see if you can pry off the smokebox front to later put a 2-56 nut on the upper end of the screw. Cut off head of long 2-56 and run another nut up to press against the underside of the frame. This may be soldered in place from underneath. Slip on the spring, any washers, and the lead truck. Affix another 2-56 screw to the bottom to hold lead truck up high enough. Cut off excess threads at bottom of screw and apply some cement to hold nut in place.

Old Toy Train Values

L. R.: Perhaps you might be able to throw some light and history on the value of some old toy trains I have had since I was a boy.

ANSWER: Sorry, but this is an impossibility without seeing the trains, and even then we'd hesitate because of lack of time, plus such other variables as demand at any given time, condition, color, uniqueness and desirability, and authenticity of all parts and paint.

While it is true that some few old pieces by various makers do command high prices, its also true that the vast bulk of old toy trains are often worth far less than their original value. As with stamps, one item built in 1925 might be worth \$300 or \$500, or more, while another piece made in the same plant in the same year, and in the same general line, will go begging for \$5.

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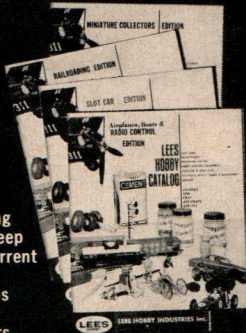
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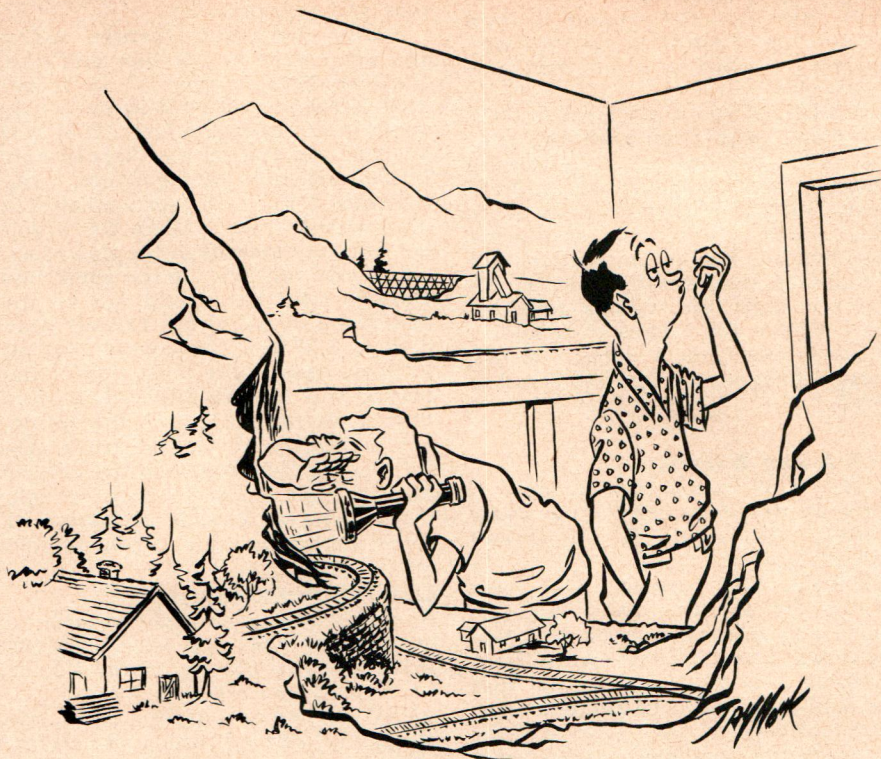
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Standard — Narrow Gauge Crossings

E. D.: Does anyone make a crossing which would permit a narrow gauge line to cross a standard gauge railroad? I specifically recall such a view on one of the Maine narrow gauge line, now abandoned.

ANSWER: A crossing for HO-HO_N2½ will shortly be available from AHM, initially in limited supply. See our HIAA trade show coverage for photo.

N Gauge Interchangeability

C. M.: Can the different makes of N (OOO) gauge trains operate together?

ANSWER: All makes of N gauge will operate on the same gauge of track though some brands take a slightly larger radius curve than others. Minित्रix (Nathan Preston) equipment is now starting to become available with a modified coupler which operates with Arnold Rapido (Merzbach) as well as with older Minित्रix equipment. Maerklin is also readying a line of N gauge trains but it is not known as yet whether it will be AC, DC, 2-rail, or 3-rail.

Canadian National Switcher

J. T.: In RMC Jan. '66 is pictured a Canadian National 1200 hp. switcher. Where can I get either plans or a model of this loco.

ANSWER: No commercial model exists at this time but perhaps one could be built using parts from other EMD switchers. Plans for the loco appeared in RMC Sept. 1964, along with prototype photos.

John Goldfarb Photos

H. K.: Your June 1965 issue showed prints of the model railroad layout in "John Goldfarb, Please Come Home." Can you send me original photos of this layout. 20th Century-Fox never answered my letter.

ANSWER: Sorry, but we only had one set of original photos. We often get requests for photos of equipment from various railroads. We regret that we are unable to supply such requests. Suggest you try some of the railfan photo sources.

Southern Pacific Red

D. G.: What is the exact color used on the nose of Southern Pacific diesels?

ANSWER: You'll find a very close match in the inside text pages, including the Athearn ad on page 3, of the March 1966 issue of Railroad Model Craftsman. We hope to be able to match up other railroad colors in future issues if there is enough interest.

Iron Curtain Trains

N. N.: Are there any model railroad trains or equipment produced behind the Iron Curtain?

ANSWER: Yes. By the East German "firms" of Zeuke, Schicht, Gutzold, VEB, and Piko. They are marketed in Europe by a state combine called Demusa G.m.b.H. in East Berlin. Gauges are HO, and TT, along with HO_Nmeter to operate on TT track. Equipment is to German and East European prototype. General quality appears to be similar to West German models, with wide use of plastics.

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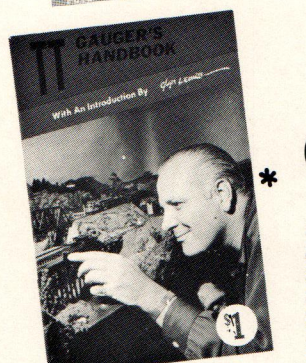
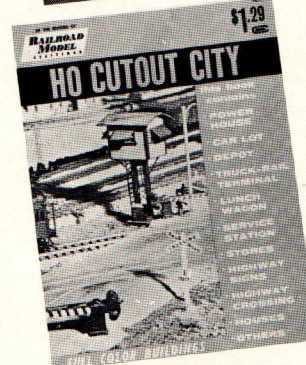
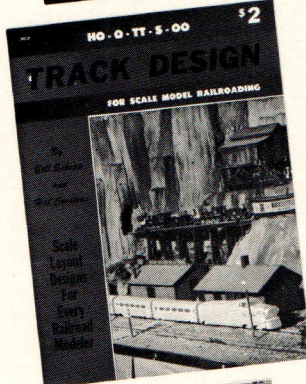
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Advertising Index For APRIL 1966

A	
All-Nation Line	61
America's Hobby Center	8, 9
Associated Hobby Manufacturers	11, 59
Athearn, Inc.	3
Austin, M. B.	5
B	
Baldwin Model Locomotive Works	6
Benty Hobby Supplies	58
Bowser Manufacturing Co.	5
C	
Cal-Scale	7
Campbell, Jack	12
Campbell Scale Models	5
Central Valley	61
Champion Decal Co.	58
Cliff Line	6
Colorado Railroad Museum	6
F	
Frederick Manufacturing	7
G	
Gandy Dancer	59
Gardner "The Train Doctor"	6
Glenmore Hardware Co.	14
Gray, Max	7
H	
Hobby House, Inc.	2
K	
Kadee Metal Products Co.	54
Kar-Line Model RR Products	12
L	
Lee's Hobby	62
Little Engines	14
M	
Magazine File Co.	61
Midwest Traction Lines	55
Mil-Scale Products	59
Model Craftsman Pub. Corp. ..	15, 48, 60, 68
Model Die Casting Co.	12
Model Engineering Works	55
Model Railroad Products	54
Model Tramway System	10
N	
N. M. R. A.	57
Northeastern Scale Models	54
P	
Pacific Fast Mail	68
Permaera Products	55
Polk's Hobbycraft	13
Preston, Nathan R., & Co.	14
Q	
Quality Craft Models	10
R	
Railroad Model Craftsman	51, 66
Real-Like	58
S	
S Gauge Herald, Inc.	14
Saratoga Models	5
Sattler's HO Depot	54
Scale Railway Equipment	60
Schopp, William	58
Selley, Incorporated	60
Smith, Nicholas	6
Special Shapes Company	61
Strete, Al	14
Suydam, E., & Co.	10
T	
Trackside Specialties	58
Trost Modelcraft & Hobbies	5
Tru-Scale Models	7
W	
Walthers, Wm. K., Inc.	55
Western Model Distributors	62

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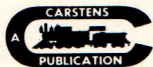
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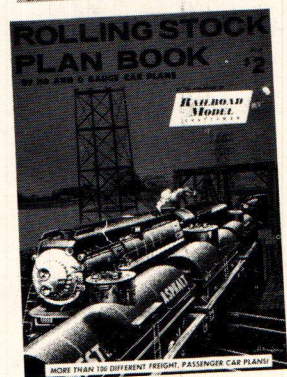
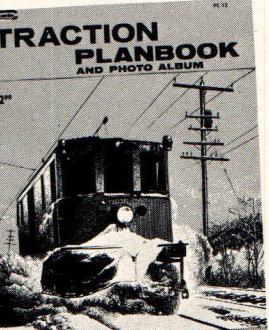
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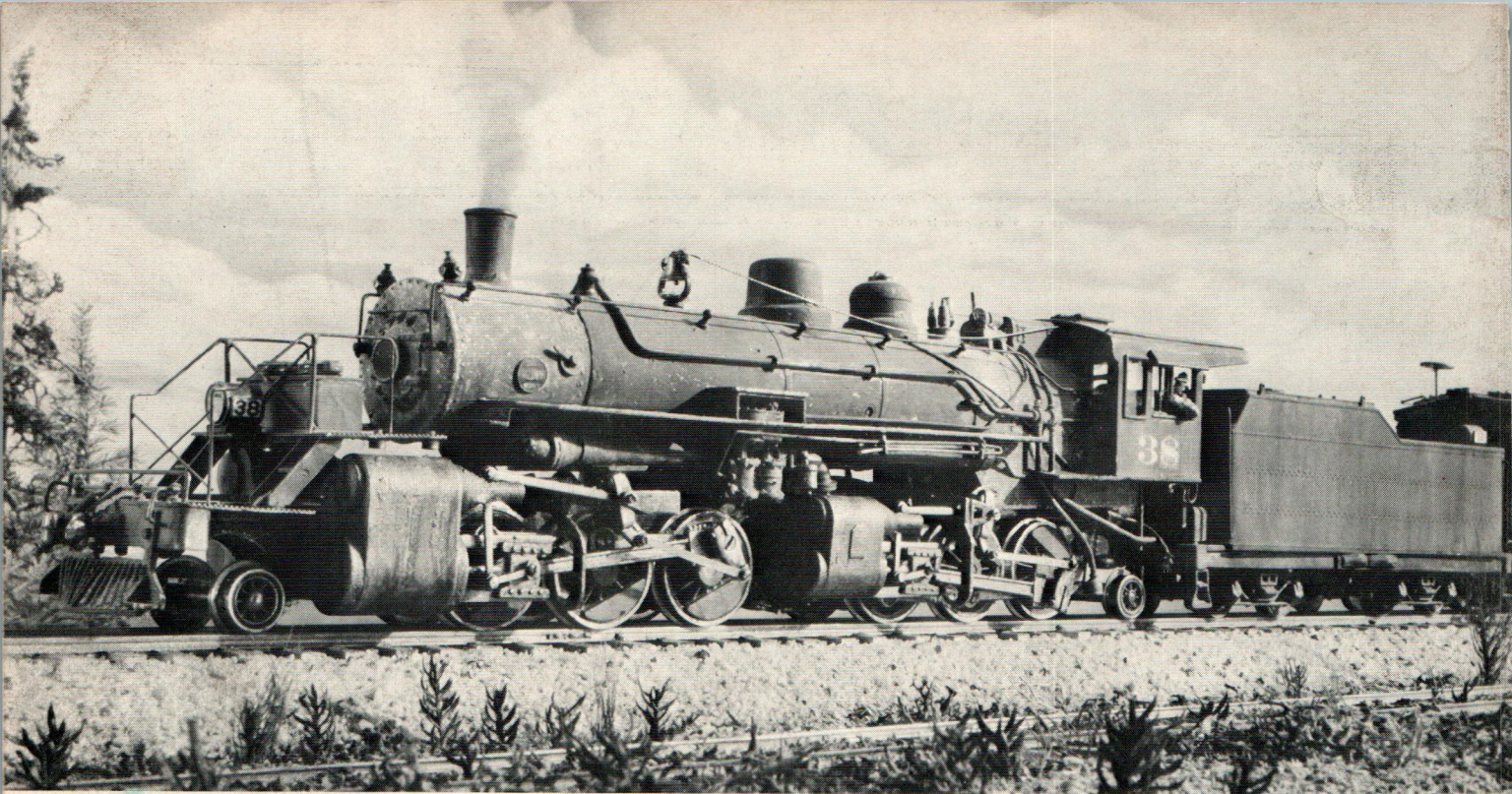
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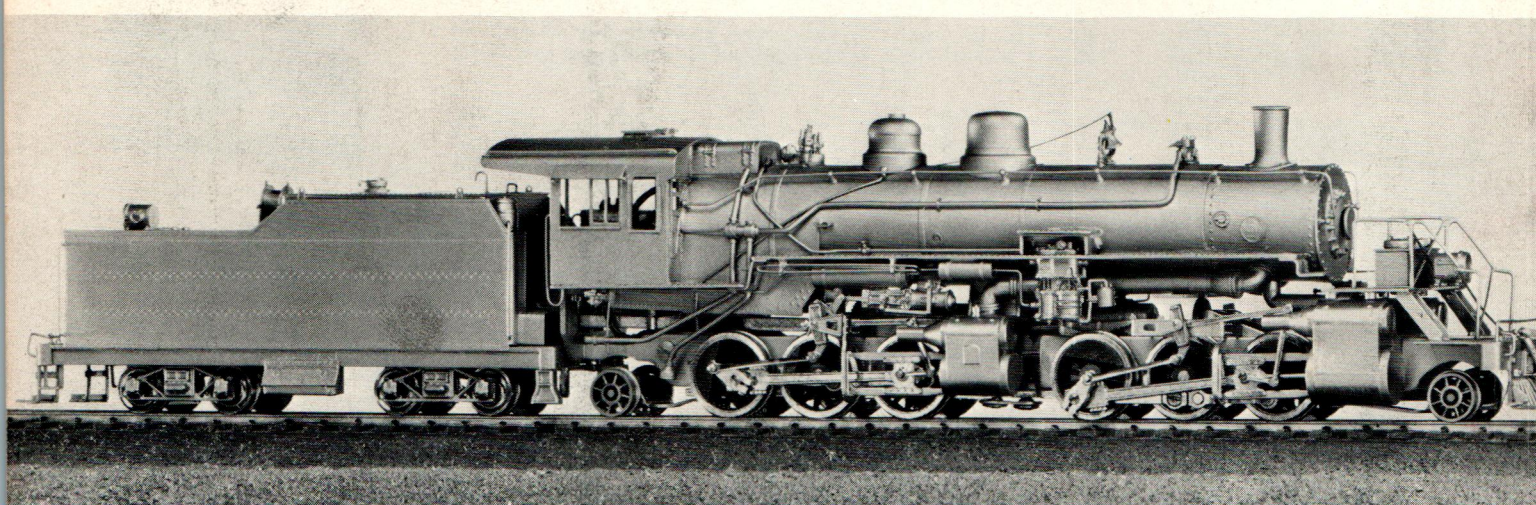
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